# CFD-980

# SERVICE MANUAL

*US Model*
*Canadian Model*
*AEP Model*

**Ver 1.3 2000.03**
**With SUPPLEMENT (9-923-297-82)**

| | | |
|---|---|---|
| Model Name Using Similar Mechanism | CD Section | CFD-360/370 |
| | Tape Section | CFD-360/370 |
| Optical Pick-up Name | | KSM-213CAM |
| Tape Transport Mechanism Type | | MF-980-146 |

## SPECIFICATIONS

**CD play section**

System: Compact disk digital audio system
Laser diode properties: Material : GaAlAs
Wavelength:780 nm
Emission duration : Continuous
Laser output : Less than 44.6 µW
(This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.)
Spindle speed: 200 r/min (rpm) to 500 r/min (rpm) (CLV)
Number of channels: 2
Frequency response: 20 – 20,000Hz + 0.5/-1dB
Wow and flutter: Below measurable limit

**Radio section**

Frequency range: US, Canadian Model
FM : 87.6 – 108 MHz
AM : 530 – 1,710 kHz
AEP Model
FM : 87.6 – 107 MHz
AM : 531 – 1,602 kHz
Aerials: FM : Telescopic aerial
AM : Built-in ferrite bar aerial

**Cassette-corder section**

Recording system: 4 -track 2 channel stereo
Fast winding time: Approx. 130 s (sec.) with Sony cassette C-60
Frequency response: TYPE1 (normal) : 50 – 13,000 Hz

**General**

Speaker: Full range : 10 cm (4 in.) dia., 3.2 Ω, cone type (2)
Output: Headphones jack (stereo minijack)
For 16 – 68 Ω impedance headphones
Power output (excluding US model)
2.0W + 2.0W (at3.2 Ω, 10 % harmonic distortion)
Power requirements: For CD radio cassette-corder :
DC IN 9V jack accepts :
Supplied AC power adaptor (AC-CD 980) for use with 120 V AC, 60Hz
Supplied car battery cord (DCC-EC9) for use with 12 V car battery
9V DC, 6 size D (R 20) batteries
For memory back-up :
6V DC, 4 size AA (R 6) batteries
Power consumption: AC 20W

— Continued on next page —

## CD RADIO CASSETTE-CORDER

MICROFILM

SONY®

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Battery life

| For CD radio cassette-corder |
|---|
| **FM recording** |
| Sony R20P : approx. 15 h |
| Sony alkaline LR20 : approx. 20 h |
| **Tape playback** |
| Sony R20P : approx. 12 h |
| Sony alkaline LR20 : approx. 17 h |
| **CD recording** |
| Sony R20P : approx. 4 h |
| Sony alkaline LR20 : approx. 6 h |

| | |
|---|---|
| Dimensions | Approx. 435 × 163 × 242 mm (w/h/d) (17 1/4 × 6 1/2 × 9 5/8 inches) (incl. projecting parts) |
| Mass | Approx. 3.9 kg (8 lb. 10 oz) (incl. batteries) |
| Supplied accessories | AC power adaptor AC-CD980 (1)<br>Car battery cord DCC-EC9 (1)<br>Spare fuse (1) |

Design and specifications are subject to change without notice.

**Optional accessories**
Sony MDR headphones series

## SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

### LEAKAGE

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.

2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

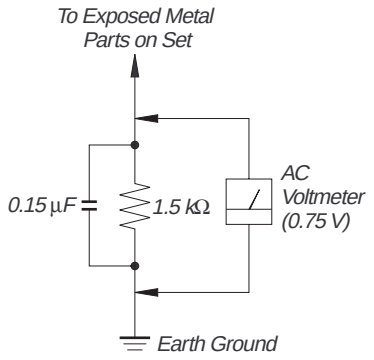



*Fig. A. Using an AC voltmeter to check AC leakage.*

**SAFETY-RELATED COMPONENT WARNING!!**

**COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.**

**ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!**

**LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.**

# SECTION 1
# SERVICE NOTES

The laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

The following caution label is located inside the unit.

| | | |
|---|---|---|
| CAUTION | ; | INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM. |
| ADVARSEL | ; | USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDS ÆTTELSE FOR STRÅLING. |
| VARO! | ; | AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA LASERSÄTEILYLLE. |
| VARNING | ; | LASERSTRÅLING NÄR DENNA DEL ÄR OPPNÅD OCH SPÄRREN ÄR URXOPPLAD. |
| ADVARSEL | ; | USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES UNNGÅ EKSPONERING FOR STRÅLEN. |

**CAUTION**
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

## NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

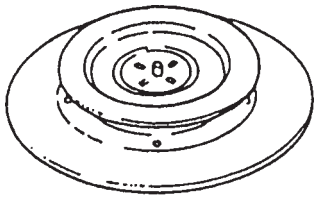
The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

## NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

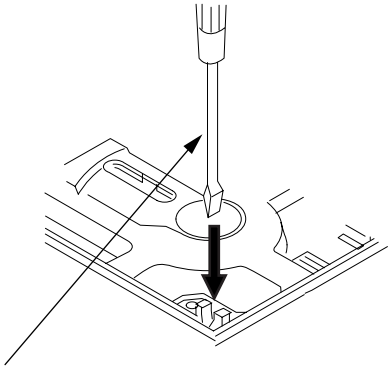
## CHUCK PLATE JIG ON REPAIRING

On repairing CD section, playing a disc without the CD lid, use Chuck Plate Jig.
• Code number of Chuck Plate Jig : X-4918-255-1



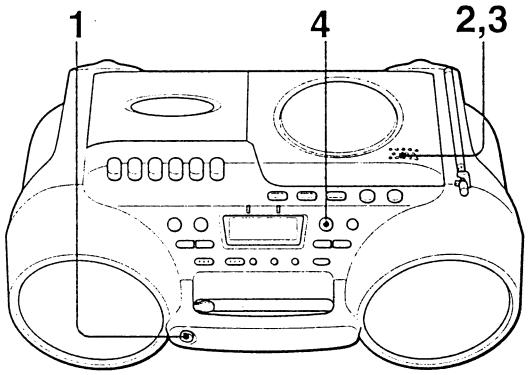
## LASER DIODE AND FOCUS SEARCH OPERATION CHECK

1. Press CD open knob.
2. Open the lid for CD.
3. Push on SWITCH as following figure.
4. Confirm the laser diode emission while observing the objecting lens. When there is no emission, Auto Power Control circuit or Optical Pick-up is broken.
   Objective lens moves up and down once for the focus search.



*Insert a precision screw driver and push SWITCH*

# Playing a CD

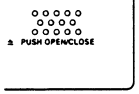



Connect the supplied AC power adaptor (see page 25).

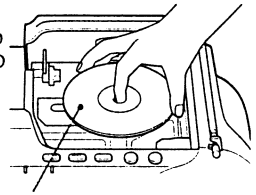
**1**

Press POWER to turn on the player.

**2**

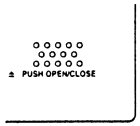



Press ≜ PUSH OPEN/CLOSE down to open the lid of the CD compartment and place the CD on the CD compartment.

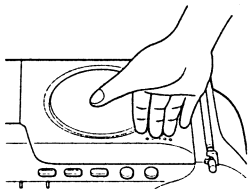


With the label side up

**3**




Close the lid of the CD compartment.

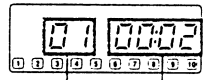


**4**

Press ►II.

The player plays all the tracks once.

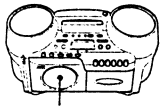
Display



Track number Playing time

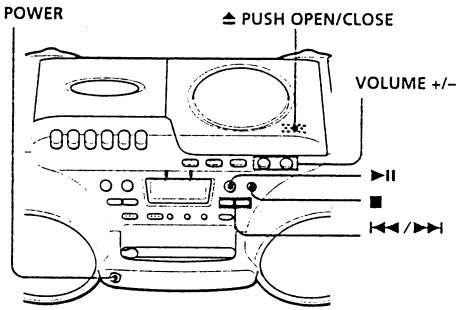
**Note**

You cannot open the lid of the CD compartment when the speakers are facing upward. This is to prevent the CD from falling out of the CD compartment.



CD compartment

**Use these buttons for additional operations**




| To | Press |
|---|---|
| Adjust the volume | VOLUME +/– |
| Stop playback | ■ |
| Pause playback | ►II<br>Press again to resume play after pause. |
| Go to the next track | ►►I |
| Go back to the previous track | I◄◄ |
| Remove the CD | ≜ PUSH OPEN/CLOSE |
| Turn off the player | POWER |



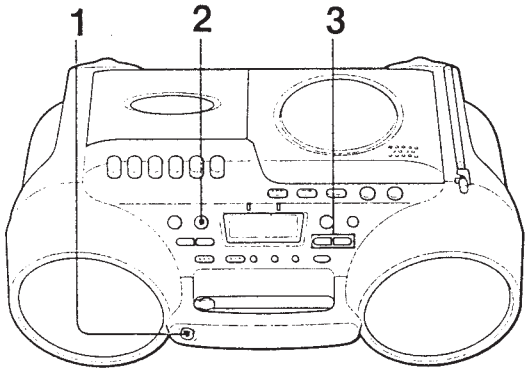






This section is extracted from instruction manual.

# Listening to the radio




Connect the supplied AC power adaptor (see page 25).

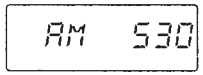
**1**

Press POWER to turn on the player.

**2**

Press BAND until the band you want appears in the display.

Display



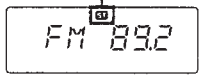

**3**

Hold down TUNING/TIME SET +/– until the frequency digits begin to change in the display.

The player automatically scans the radio frequencies and stops when it finds a clear station.

If you can't tune in a station, press the button once at a time.

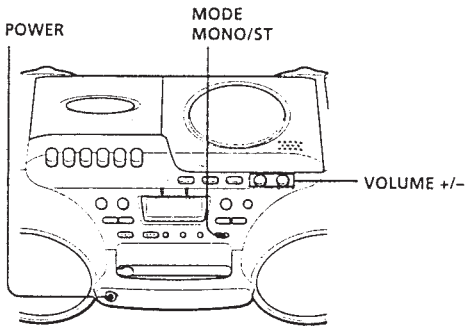
Indicates an FM stereo broadcast.




**Tip**

If the FM broadcast is noisy, press MODE•MONO/ST until "Mono" appears in the display and the radio will play in monaural.

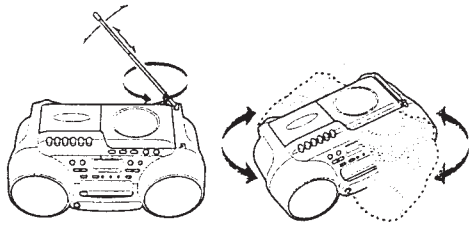
Use these buttons for additional operations




| To | Press |
|---|---|
| Adjust the volume | VOLUME +/– |
| Turn off the radio | POWER |

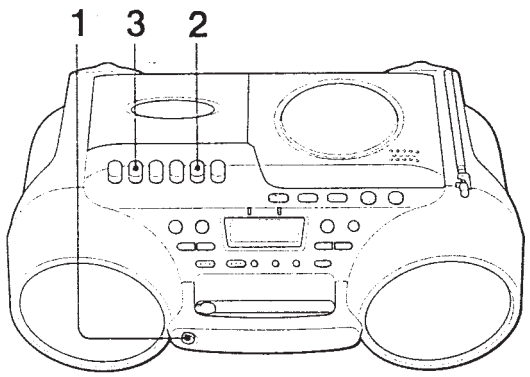
**To improve broadcast reception**

Reorient the antenna for FM. Reorient the player itself for AM.



for FM for AM

# Playing a tape



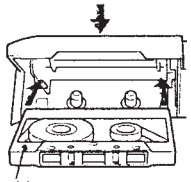

Connect the supplied AC power adaptor (see page 25).

**1**

Press POWER to turn on the player.

**2**

Press ■≙ to open the tape compartment and insert a recorded tape. Use TYPE I (normal) tape only. Close the compartment.



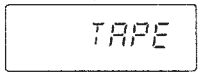
With the side you want to play facing upward

**3**

Press ►.

The player starts playing.

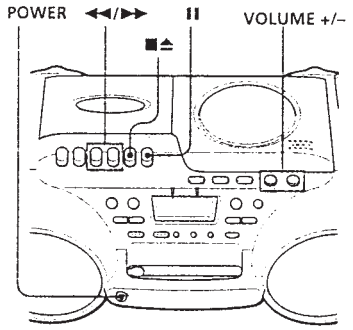
Display





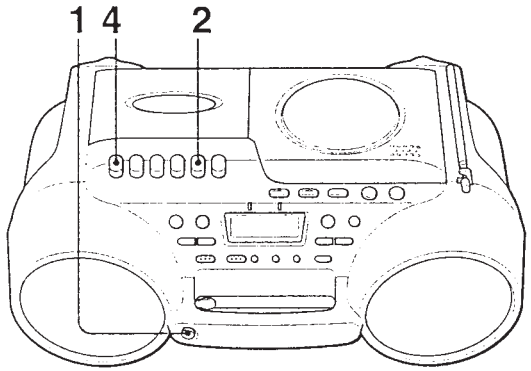



Use these buttons for additional operations




| To | Press |
|---|---|
| Adjust the volume | VOLUME +/– |
| Stop playback | ■≙ |
| Fast-forward or rewind the tape | ►► or ◄◄ |
| Pause playback | II<br>Press the button again to resume play after pause. |
| Eject the cassette | ■≙ |
| Turn off the player | POWER |

# Recording on a tape




Connect the supplied AC power adaptor (see page 25).

**1**

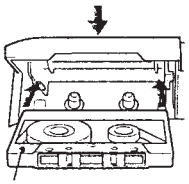
POWER

Press POWER to turn on the player.

**2**

STOP/EJECT

Press ■≙ to open the tape compartment and insert a blank tape. Use TYPE I (normal) tape only.



With the side you want to record on facing upward

**3**

CD

RADIO

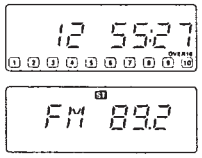
BAND

Select the program source you want to record.

To record from the CD player, insert a CD (see page 4) and press ■ on the CD section.

To record from the radio, press BAND and tune in the station you want (see page 6.)

Display




**4**

REC

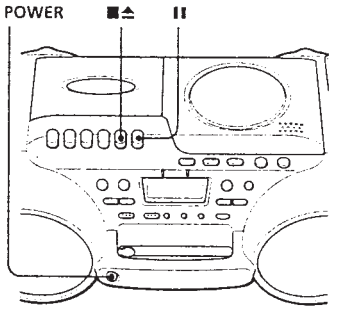
Press ● to start recording.

(► is depressed automatically.)

**Tips**

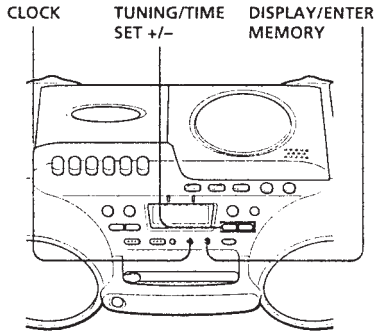
- Adjusting the volume or the audio emphasis (see page 27) will not affect the recording level.
- To erase a recording, proceed as follows:
  1 Press POWER.
  2 Press FUNCTION repeatedly until "TAPE" appears in the display. Insert the tape whose recording you want to erase into the tape compartment.
  3 Press ●.

**Use these buttons for additional operations**




| To | Press |
|---|---|
| Stop recording | ■≙ |
| Pause recording | II<br>Press the button again to resume recording. |
| Turn off the player | POWER |

# Setting the clock

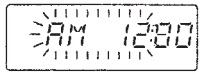



Before you set the clock, connect the AC power adaptor (see page 25.)
Before you set the clock, "AM 12:00" flashes.

**Tip**

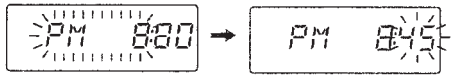
The time display system:
12-hour system

**1** Press CLOCK for about 2 seconds until the hour digit flashes.




**2** Press TUNING/TIME SET +/– until you set the current hour. Then press DISPLAY/ENTER• MEMORY.

The minute digits flash. Set the minutes by pressing TUNING/TIME SET +/– until the correct minute is displayed.




**3** Press DISPLAY/ENTER•MEMORY.

The clock starts from 00 seconds.

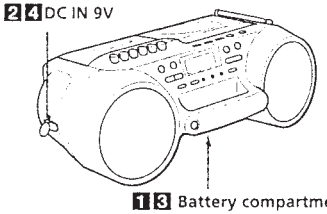






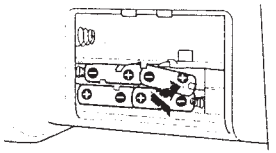
# Choosing the power sources

You can use the AC power, batteries or the car battery as a power source.




## 1 Inserting the back-up batteries

Insert four size AA (R6) batteries (not supplied) into the battery compartment. These batteries work to save the memory data.



**Note**

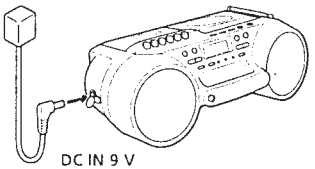
Use only the supplied AC power adaptor (AC-CD980). Do not use any other AC power adaptor.

Polarity of the plug

## 2 Connecting the AC power adaptor

Insert one end of the supplied AC power adaptor (AC-CD980) to the DC IN 9 V socket located on the side of the player, and the other end to the wall outlet.

To a wall outlet




continued

Tip

Replace the batteries when the OPR/BATT indicator dims or when the player stops operating. Replace all the batteries with new ones. Before you replace the batteries, be sure to take out the CD from the player.

Notes

- Use only the supplied car battery cord (DCC-EC9). Do not use any other car battery cord.

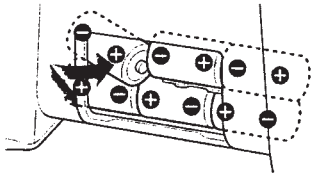
Polarity of the plug

- Use the supplied car battery cord only with a negative ⊖ grounded car that uses a 12 V battery.
- If the inside of the cigarette lighter socket is dirty with ashes, etc., the plug of the car battery cord may become heated due to a bad contact. Before connecting the cord, be sure to clean the socket.
- When listening to the radio on this player, the car battery cord may cause noise. Extend it as long as possible, and keep it as far away as possible from the player.

### 3 Using the player on batteries

Insert six size D (R20) batteries (not supplied) into the battery compartment.

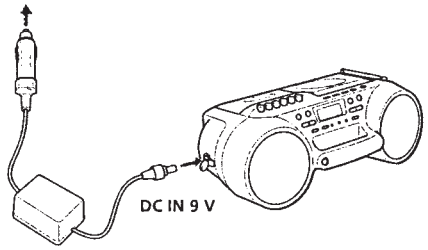
To use the player on batteries, disconnect the AC power adaptor from the player.



### 4 Using the player on car battery

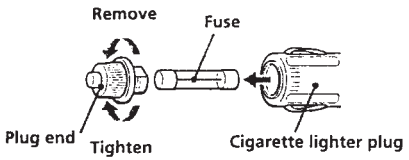
Insert one end of the supplied car battery cord (DCC-EC9) to the DC IN 9 V socket located on the side of the player, and the other end to a cigarette lighter socket.

To a cigarette lighter socket




### To replace the fuse of the car battery cord

Be sure to use the fuse with the correct amperage. (4A, 125 v, length 31.75 mm)

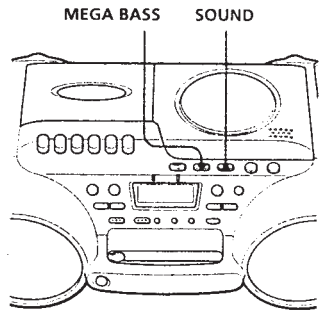





# Selecting the audio emphasis

## (Sound Mode/MEGA BASS)

You can adjust the audio emphasis of the sound you are listening to.




### Selecting the sound characteristic

Press SOUND to select the audio emphasis you want.

| Choose | To get |
|---|---|
| ROCK | powerful, clean sounds, emphasizing low and high range audio |
| POP | light, bright sounds emphasizing high and middle range audio |
| LIVE | percussive sounds, emphasizing bass audio |
| VOCAL | the presence of vocals, stressing middle range audio |
| OFF | the whole dynamic range for music such as classical music |

### Reinforcing the bass sound

Press MEGA BASS.

"MEGA BASS" appears in the display. To return to normal sound, press the button again.

# Troubleshooting

| | Symptom | Remedy |
|---|---|---|
| General | The power is not on. | • Connect the AC power adaptor to a wall outlet securely.<br>• Make sure the batteries are inserted correctly. |
| | There is no audio. | • Make sure the function you want to use appears in the display.<br>• Adjust the volume.<br>• Unplug the headphones when listening through speakers. |
| CD Player | "no disc" lights in the display even when a CD is in place. | • Insert the CD with the label surface up. |
| | The CD does not play. | • Make sure that the CD compartment is closed.<br>• Place the CD with the label surface up.<br>• Clean the CD.<br>• Take out the CD and leave the CD compartment open for about an hour to dry moisture condensation.<br>• Make sure "Cd" appears in the display. |
| | The sound drops out. | • Reduce the volume.<br>• Clean the CD, or replace it if the CD is badly damaged<br>• Place the player in a location free from vibration. |
| | The lid of the CD ompartment will not open. | • You cannot open the CD compartment when the speakers are facing upward. |
| Radio | The audio is weak or has poor quality. | • Replace all the batteries with new ones if they are weak.<br>• Move the player away from the TV. |
| | The picture of your TV becomes unstable. | • If you are listening to an FM program near the TV with an indoor antenna, move the player away from the TV. |

| | Symptom | Remedy |
|---|---|---|
| Tape Player | The tape does not move when you press an operation button. | • Close the cassette compartment securely. |
| | The REC ● button does not function/The tape does not play. | • Make sure the safety tab on the cassette is in place.<br>• Make sure "TAPE" appears in the display. |
| | The tape does not erase completely. | • Clean the erasing head (see page 32).<br>• Replace all the batteries with new ones if they are weak. |
| | The tape does not record. | • Make sure the tape is inserted properly.<br>• Make sure the safety tab of the cassette is in place. |
| | The audio is weak/The audio quality is poor. | • Clean the heads, pinch roller and capstan (see page 32).<br>• Demagnetize the heads using a demagnetizer (see page 32). |
| | The sound is distorted. | • The TYPE II (high position) or TYPE IV (metal) tape is being used. Use TYPE I (normal) tape only. |
| Timer | The timer does not operate. | • Make sure the time on the clock is correct.<br>• Check to see if the AC power had been cut off.<br>• Make sure the ◴ (clock) indication is displayed. |

The player uses a built-in micro computer for its various operations. Due to change in power supply conditions, etc., operation may sometimes become unstable. After trying the above remedies, if the player still does not function properly, press RESET in the battery compartment with a pointed material. If the problem persists, please consult your nearest Sony dealer.

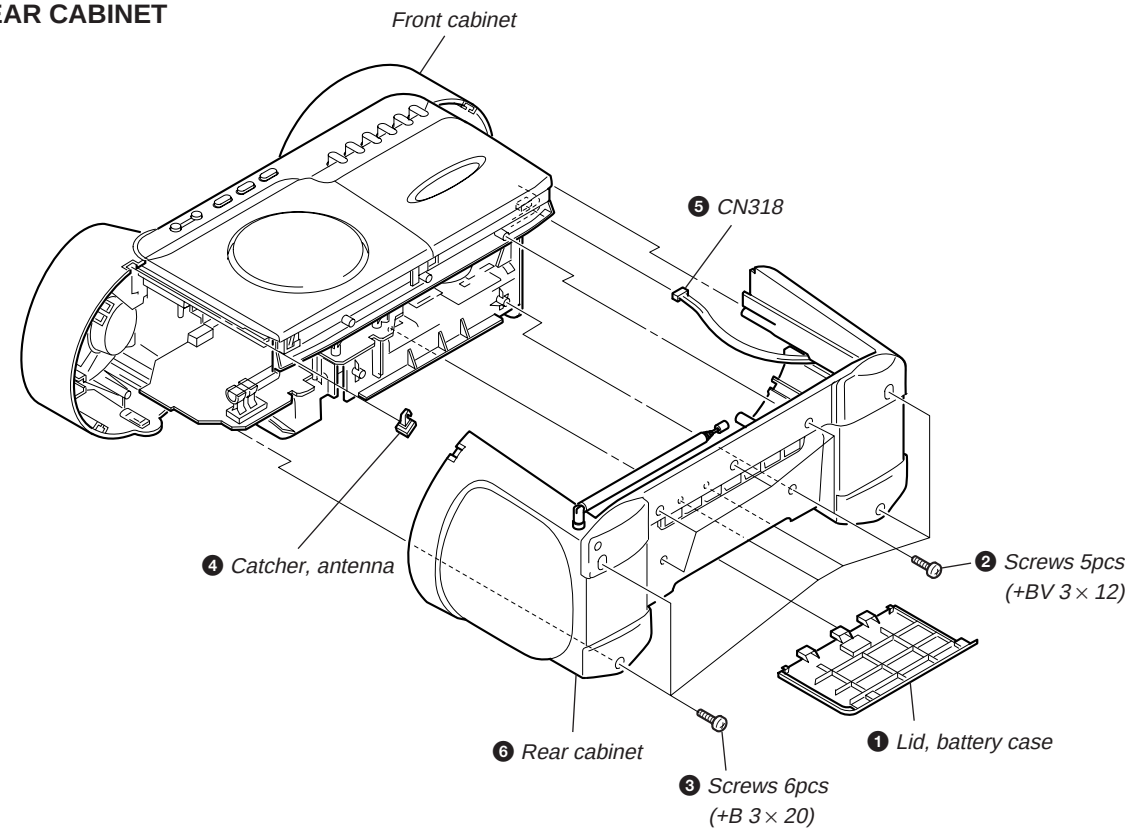
# SECTION 3
# DISASSEMBLY

**Note :** Follow the disassembly procedure in the numerical order given.

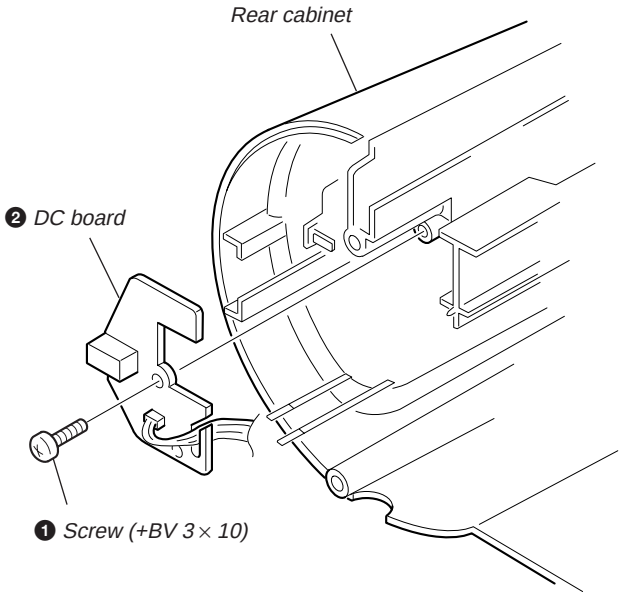
SET ➡ REAR CABINET ➡ DC BOARD ➡ BATTERY CASE / TUNER BOARD / RESET BOARD

CABINET SUB ASSY, FRONT / MAIN BOARD ➡
- CONTROL PANEL / SW1 BOARD
- POWER SW BOARD / H/P BOARD
- OPTICAL PICK-UP (KSM-213CAM) SECTION / SW2 BOARD
- REC BOARD / MECHANISM DECK (MF-980-146) SECTION

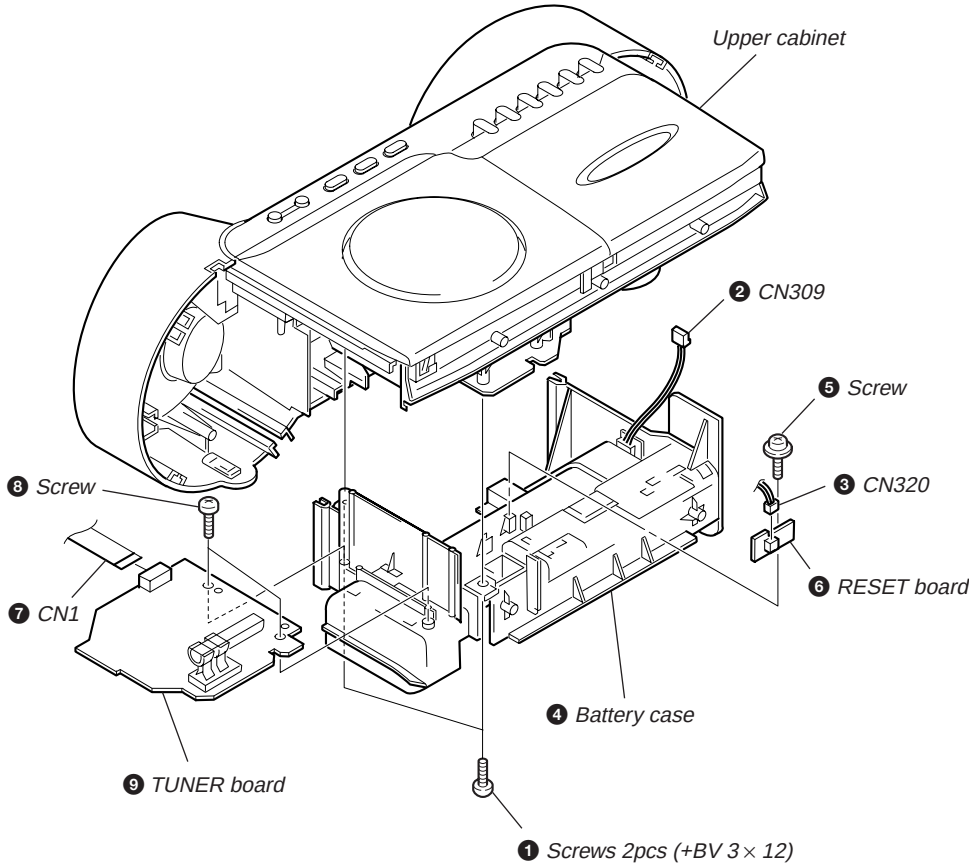
## 3-1. REAR CABINET



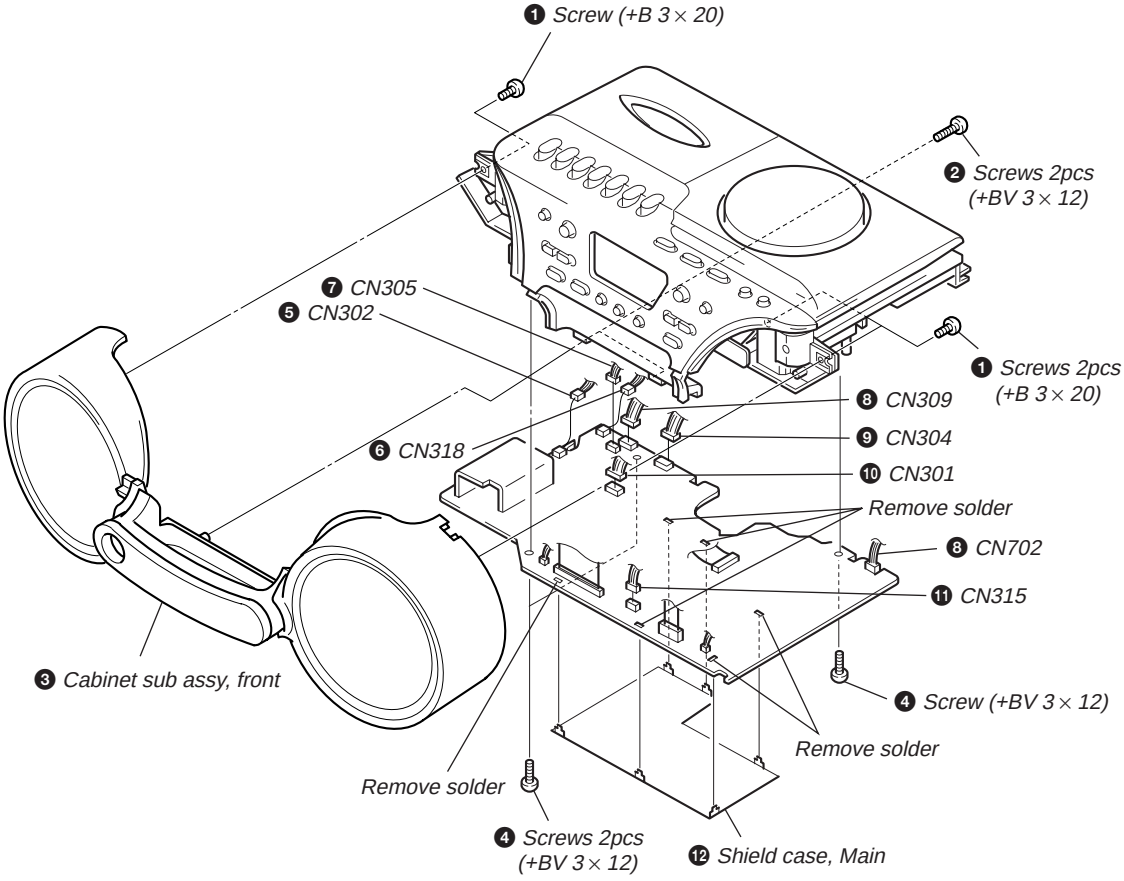

## 3-2. DC BOARD



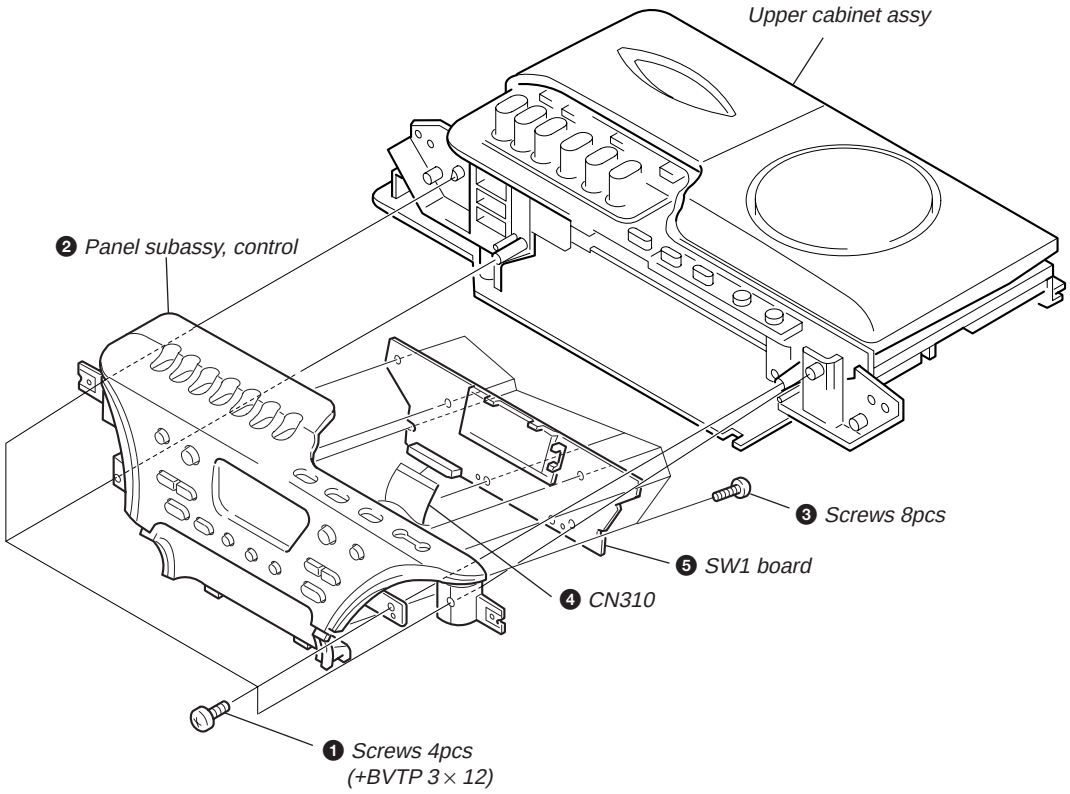
### 3-3. BATTERY CASE / TUNER BOARD / RESET BOARD



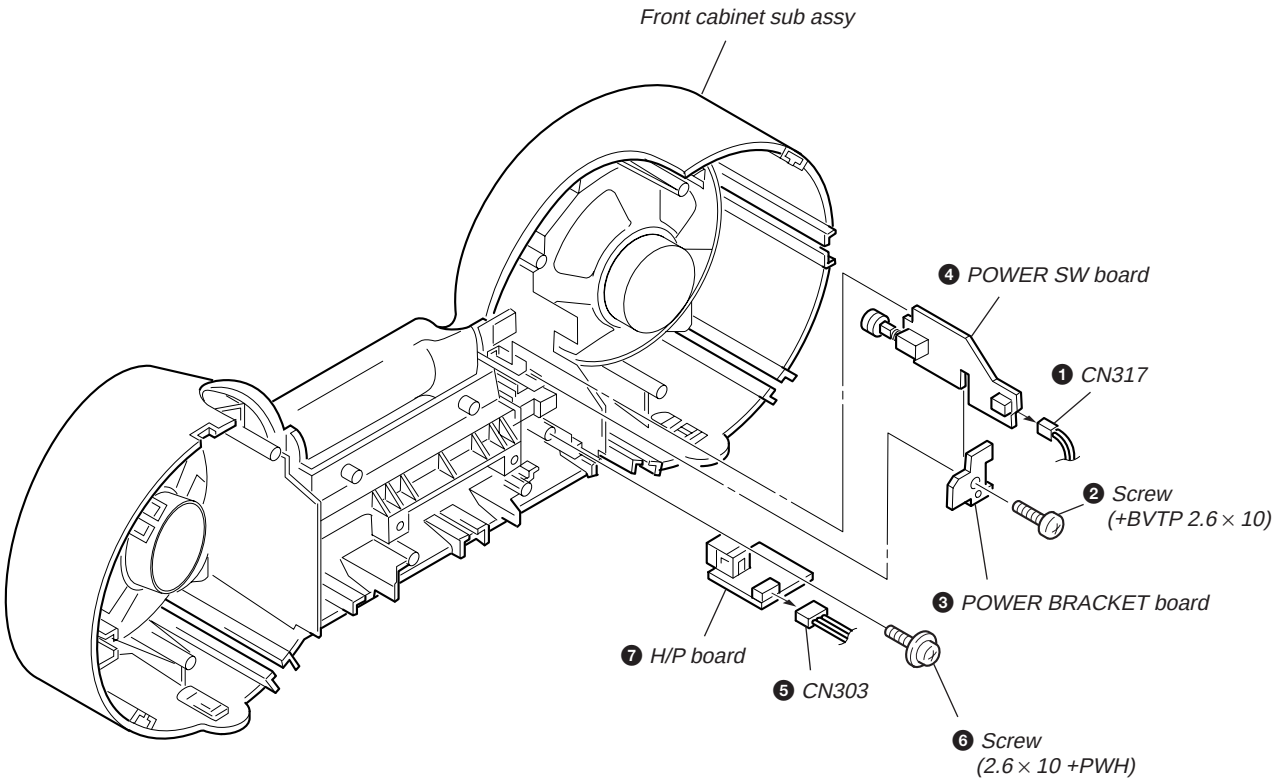

### 3-4. CABINET SUB ASSY, FRONT / MAIN BOARD



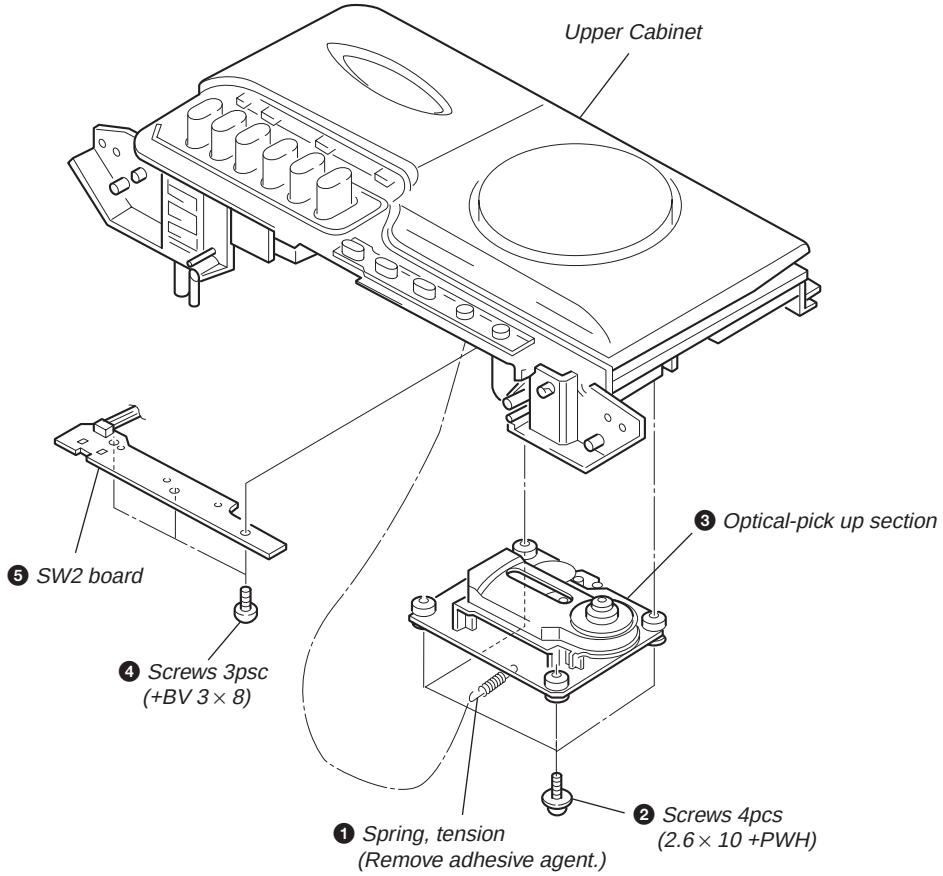
### 3-5. CONTROL PANEL / SW BOARD



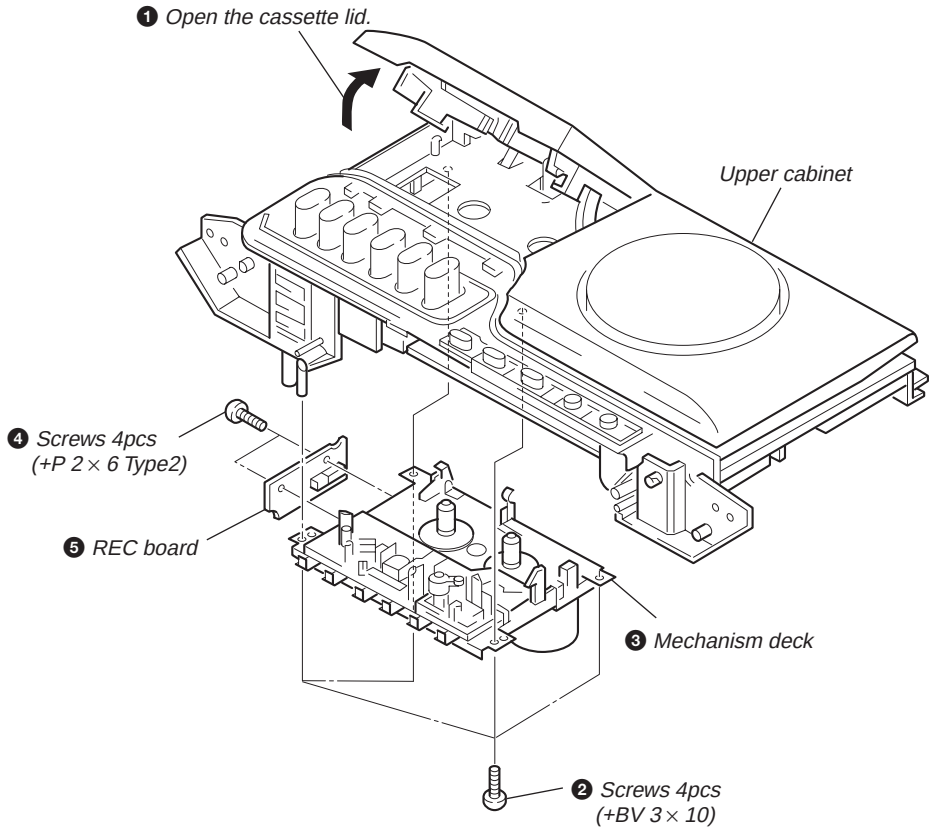

### 3-6. POWER SW BOARD / H/P BOARD



### 3-7. OPTICAL PICK-UP (KSM-213CAM) SECTION / SW2 BOARD




### 3-8. REC BOARD / MECHANISM DECK (MF-980-146) SECTION



# SECTION 4
# ADJUSTMENTS

## 4-1. MECHANICAL ADJUSTMENT

**PRECAUTION**

1. Clean the following parts with a denatured-alchool-moistened swab:
   record/playback head, erase head, capstans, pinch roller, rubber belts
2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.

### Torque Measurement

| Mode | Torque Meter | Meter Reading |
|---|---|---|
| FWD | CQ-102C | 60g•cm (0.42 – 0. 83 oz•inch) |
| FWD back tension | | 1 – 5g•cm (0.014 – 0.07 oz•inch) |
| Fast Forward | CQ-201B | more than 55g•cm (more than 0.77 oz•inch) |
| Rewind | | more than 55g•cm (more than 0.77 oz•inch) |

### Tape Tension Measurement

| Torque Meter | Meter Reading |
|---|---|
| CQ-403A | more than 80g (more than 2.83 oz) |

## 4-2. ELECTRICAL ADJUSTMENT

1dB = 0.775V

### TAPE RECODER SECTION

**Standard output level**

| Output Pin | HP OUT |
|---|---|
| Load impedance | 32 Ω |
| Output signal level | 0.25 V (–10dB) |

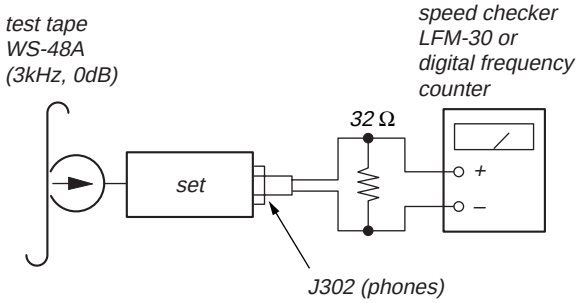
**Test tape**

| Test Tape | Signal | Used for |
|---|---|---|
| WS-48A | 3kHz, 0dB | Tape speed adjustment |
| P-4-A063 | 6.3kHz, –10dB | Head azimuth adjustment. |

**Tape Speed Adjustment**

**Procedure :**

Mode : Playback

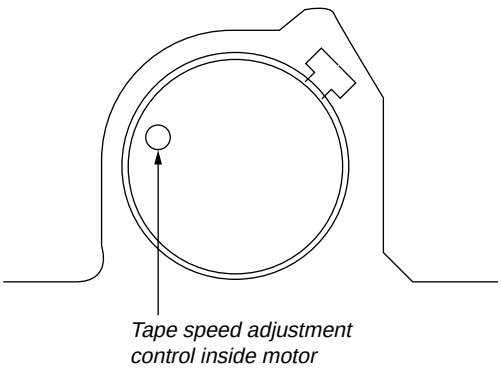



**Adjustment Value :** normal tape speed

| Speed checker | Digital frequency counter |
|---|---|
| –3.0 to 3.0% | 2,910 – 3,090Hz |

Frequency difference between the beginning and the end of the tape should be within 3% (90Hz).

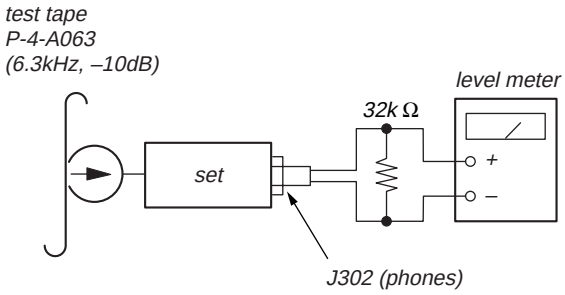
**Adjustment Location :**



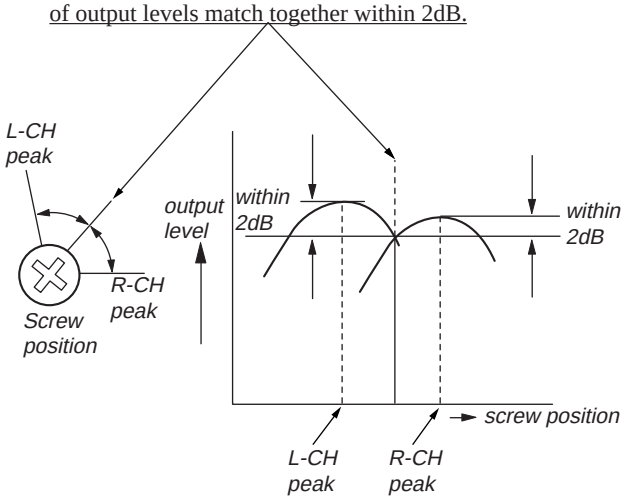
### Record/Playback Head Azimuth Adjustment

**Procedure:**

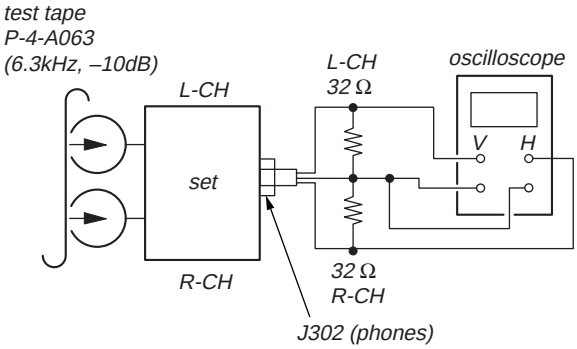
1. Mode : Playback

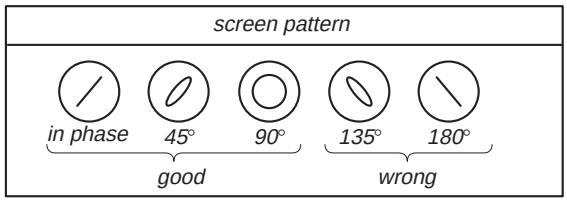



2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 2dB.



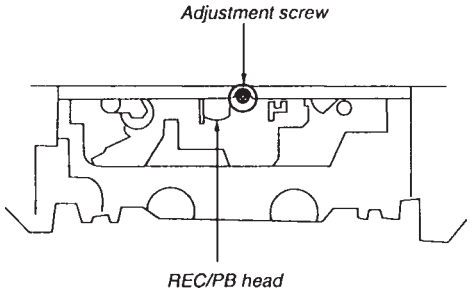

3. Phase Check
   Mode : Playback




**Note:** Adjustment must be completed by cw turning of adjustment screw.
After the adjustment, lock the screws with locking compound.

**Adjustment Location :** Record/Playback head



## 4-3. TUNER SECTION

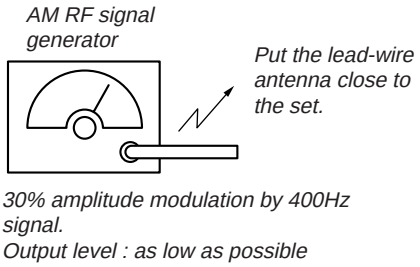
0 dB = 1 µV

• Switch Location

VOLUME : MAX
MEGA BASS : OFF
SOUND : OFF

### AM SECTION

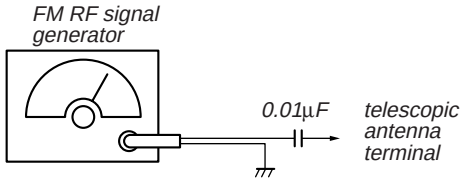
BAND : AM
Signal generator



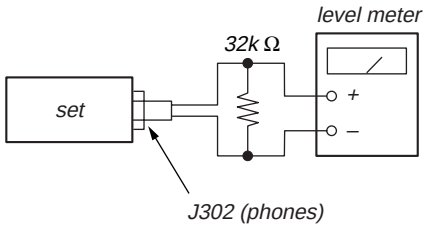

*30% amplitude modulation by 400Hz signal.*
*Output level : as low as possible*

### FM SECTION

BAND : FM
Signal generator




*75kHz (100%) amplitude modulation by 1kHz signal.*
*Output level : as low as possible*




**Adjustment Location :** MAIN board (Component side)

(See page 21)

- Repeat the procedures in each adjustment several times for the maximum level meter indication.
- The frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

( ) : AEP,UK

| AM IF ALIGNMENT | |
|---|---|
| Adjust for a maximum reading on level meter. | |
| CFT1 | 1,000kHz (999kHz) |

( ) : AEP,UK

| AM TRACKING ADJUSTMENT | |
|---|---|
| Adjust for a maximum reading on level meter. | |
| L3 | 620kHz (621kHz) |
| CT2 | 1,400kHz (1,404kHz) |

( ) : AEP,UK

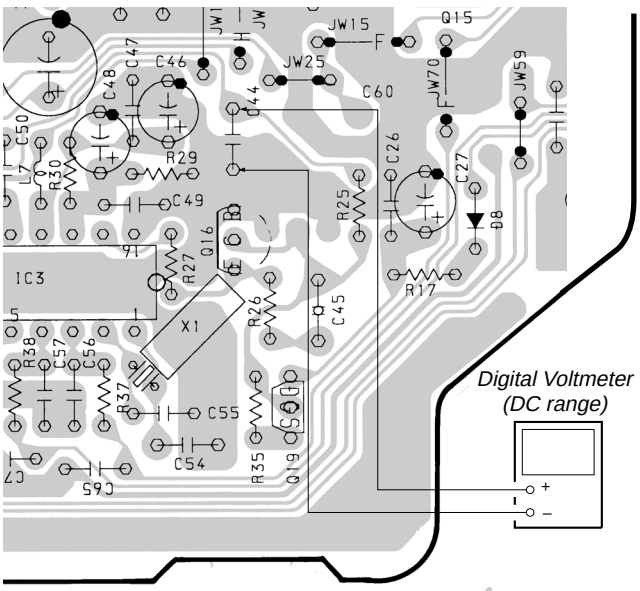
| AM FREQUENCY COVERAGE ADJUSTMENT | | |
|---|---|---|
| Adjust part | Frequency display | Reading on digital voltmeter |
| L4 | 530kHz (531kHz) | 0.85 ± 0.2V |
| Confirmation | 1,710kHz (1,611kHz) | 4.8 ± 0.5V |

| FM TRACKING ADJUSTMENT | |
|---|---|
| Adjust for a maximum reading on level meter. | |
| L1 | 87.5MHz |
| CT1 | 108MHz |

| FM FREQUENCY COVERAGE ADJUSTMENT | | |
|---|---|---|
| Adjust part | Frequency display | Reading on digital voltmeter |
| L2 | 108MHz | 4.0 ± 0.2V |
| Confirmation | 87.5MHz | 1.55 ± 0.2V |

**Frequency Coverage Adjustment**
**Procedure :**

**[TUNER BOARD] (Component side)**



## CD SECTION

### Notes on Adjustment

1. Perform the traverse adjustment in the CD test mode.
   After adjustment, be sure to release test mode.
2. Perform adjustments in the order given.
3. Use the disc (YEDS-18, Parts No. 3-702-101-01) only when so indicated.

### Before Adjustment

Put the set into test mode and perform the following checks.
Repair if there are any problems.

• Sled Motor Check

Press ▶▶I , I◀◀ keys and confirm that the Optical pick-up moves smoothly from the innermost to outermost circumference and back smoothly and with no catching or abnormal noises.
(Cancellation of BTL mute)
▶▶I : Optical pick-up moves to the outer circumference.
I◀◀ : Optical pick-up moves to the inner circumference.

• **Focus Search Check**

1. Press the CD ▶II key. (Focus search operation is performed continuously.)
2. Look at the Optical pick-up objective lens and confirm that it moves up and down smoothly, with no catching or abnormal noises.
3. Press ■ button.
   Confirm that focus search operation stops. If it does not, press ■ button again longer.

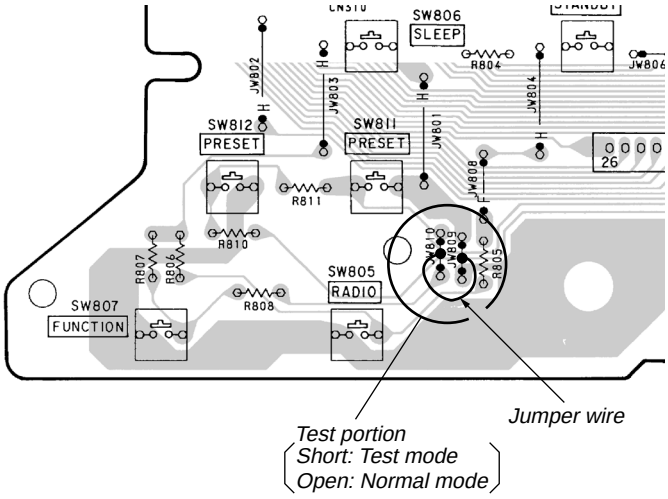
### How to put the Set into Test Mode

1. Short-circuit between JW809 and JW810 on the switch board.
2. Turn the AC CORD IN (Adaptor).
   (LCD 801 indicator blinks the test mode pattern.)
3. Open the short-circuit to release JW809 and JW810.

### How to releas Test Mode

Turn the POWER OFF.

### [SWITCH BOARD] (Component side)



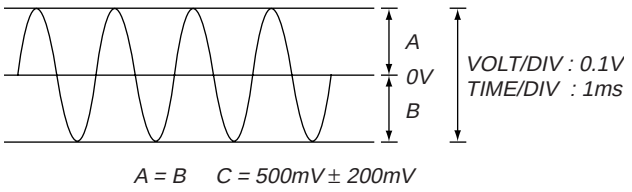

### E-F Balance Adjustment

**Adjustment Location :** MAIN board (Component side)
(See page 21)

This adjustment is to be done when the optical pick-up block is replaced.

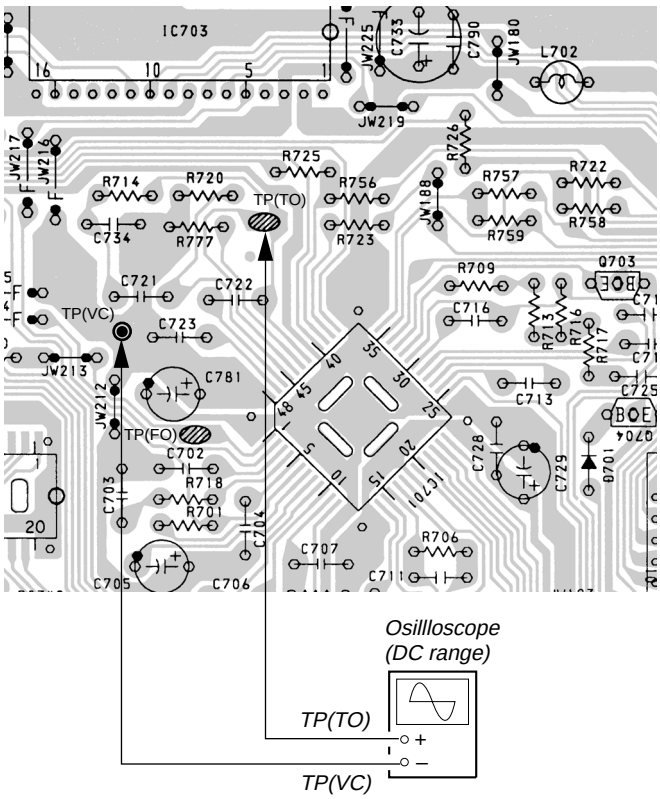
**Adjustment Procedure:**

1. Connect the oscilloscope to test point TP (VC) and TP (TO) on MAIN board.
2. Put the set into test mode.
3. Optical pick-up setting to the center by ▶▶I or I◀◀ button pushing.
4. Insert disk (YEDS-18) and press ▶II button.
5. Adjust RV703 so that the oscilloscope traverse waveform is symmetrical, as shown in the figure below.
6. Release test mode after adjustment is completed.




*A = B  C = 500mV ± 200mV*

### [MAIN BOARD] (Component side)



### Focus Bias Adjustment

**Adjustment Location :** MAIN board (Component side)

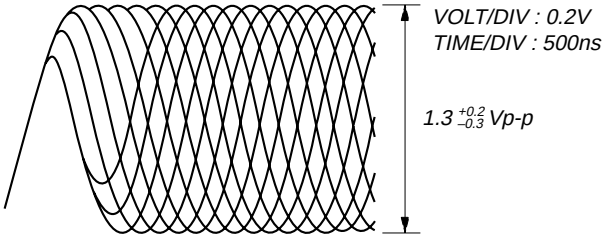
(See page 21)

This check is to be done when the optical block replaced.

**Adjustment Procedure:**

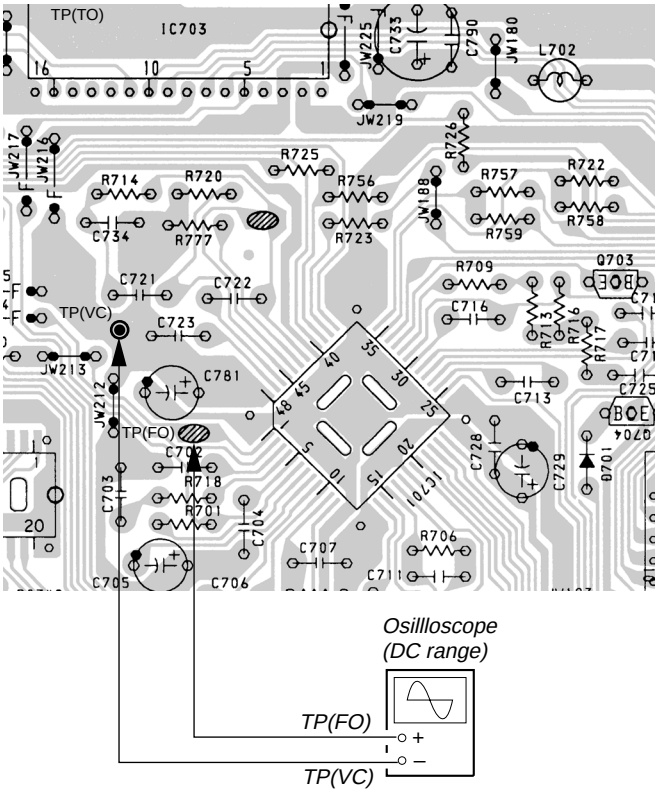
1. Connect the oscilloscope to test point TP (VC) and TP (RFO) on MAIN board.
2. Put the set into test mode.
3. Opitical pick-up setting to the center by + or – button pushing.
4. Insert disk (YEDS-18) and press ▶II button.
5. Press the MODE button. (Tracking servo ON)
6. Adjust RV701 so that the oscilloscope wavewform is as shown in the figure below (eye pattern).
   A good eye pattern means that the diamond shape (◊) in the center of the waveform can be clearly distinguished.
7. Release test mode after adjustment is completed.

• RF signal reference waveform (eye pattern)




When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensivity.

**[MAIN BOARD] (Component side)**




## 4-4. REFERENCE

### Focus/Tracking Gain Adjustment

**Adjustment Location :** MAIN board (Component side)

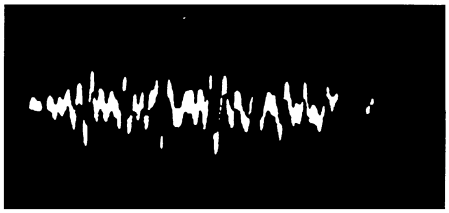
(See page 21)

A frequency response analyzer is necessary in order to perform this adjustment exactly.
However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment.
Focus/Tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate.
However, as these reciprocate, the adjustment is at the point where both are satisfied.

- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, it is more susceptible to mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

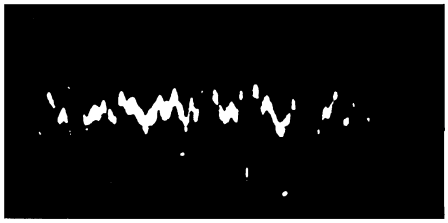
| Symptoms \ Gain | Focus | Tracking |
|---|---|---|
| • The time until music starts becomes longer for STOP ➡ CD ▶II or automatic selection (◀◀ , ▶▶ buttons pressed). (Normally takes about 2 seconds.) | low | low or high |
| • Music does not start and disc continues to rotate for STOP ➡ CD ▶II or automatic selection (◀◀ , ▶▶ buttons pressed.) | — | low |
| • Sound is interrupted during PLAY. Or time counter display stops progressing. | — | low |
| • More noise during 2-axis device operation. | high | high |

- Good Example




- Incorrent Examples (DC level changes more than on adjusted waveform)

*low focus gain*

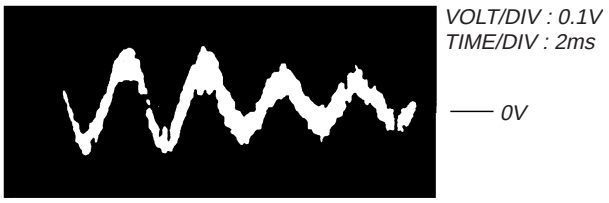



*high focus gain*

5. Connect the oscilloscope between TP (TE) and TP (VC).
6. Insert disc (YEDS-18) and press the CD ▶II button.
7. Adjust RV704 so that the waveform is as shown in the figure below. (tracking gain adjustment)

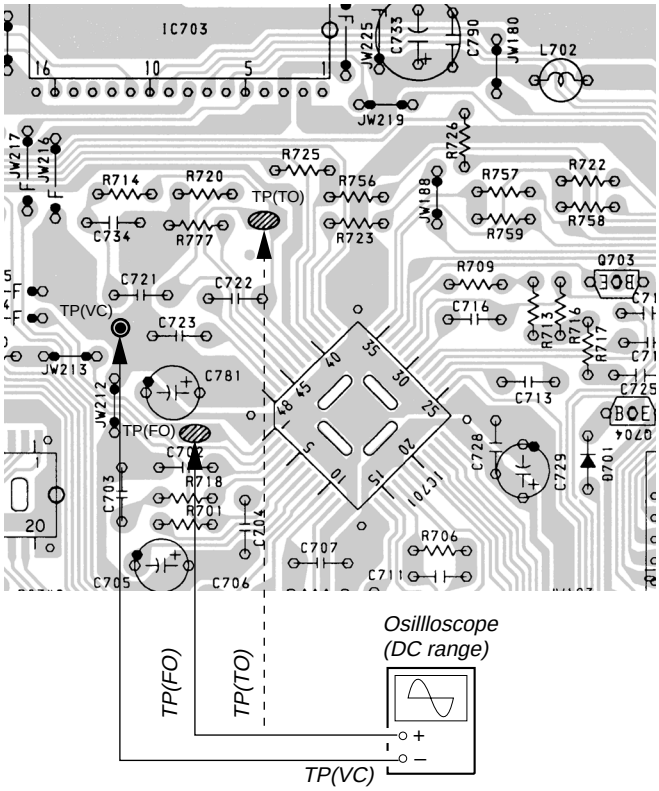
- Incorrect Examples (fundamental wave appears)

*low tracking gain*

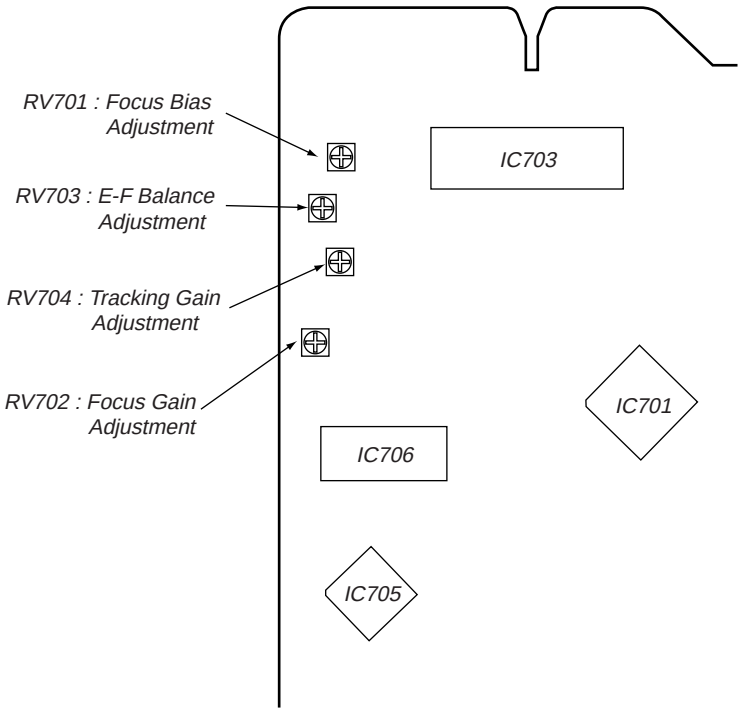



*high tracking gain*
*(high fandametial wave than for low gain)*

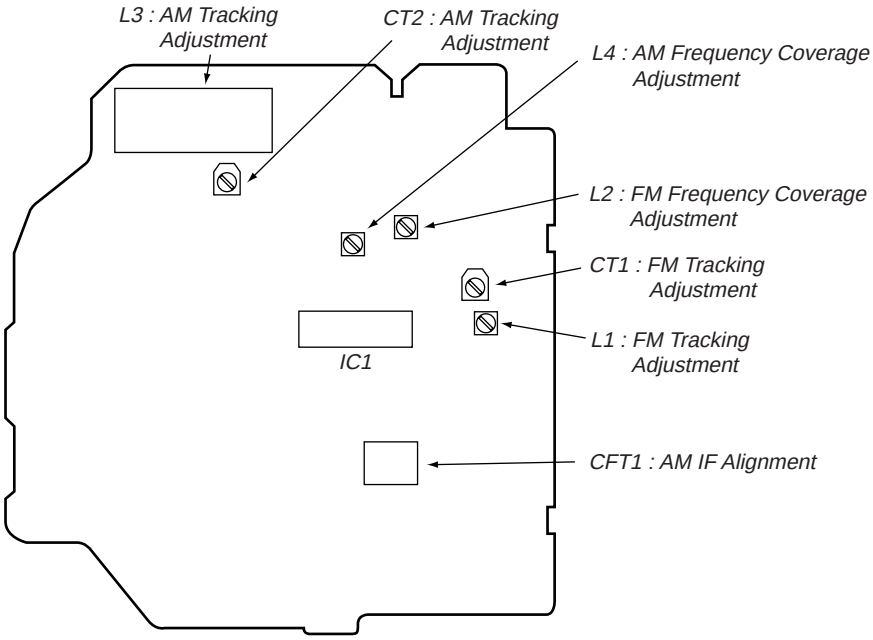
**[MAIN BOARD] (Component side)**



**Adjustment Location :** MAIN board (Component side)

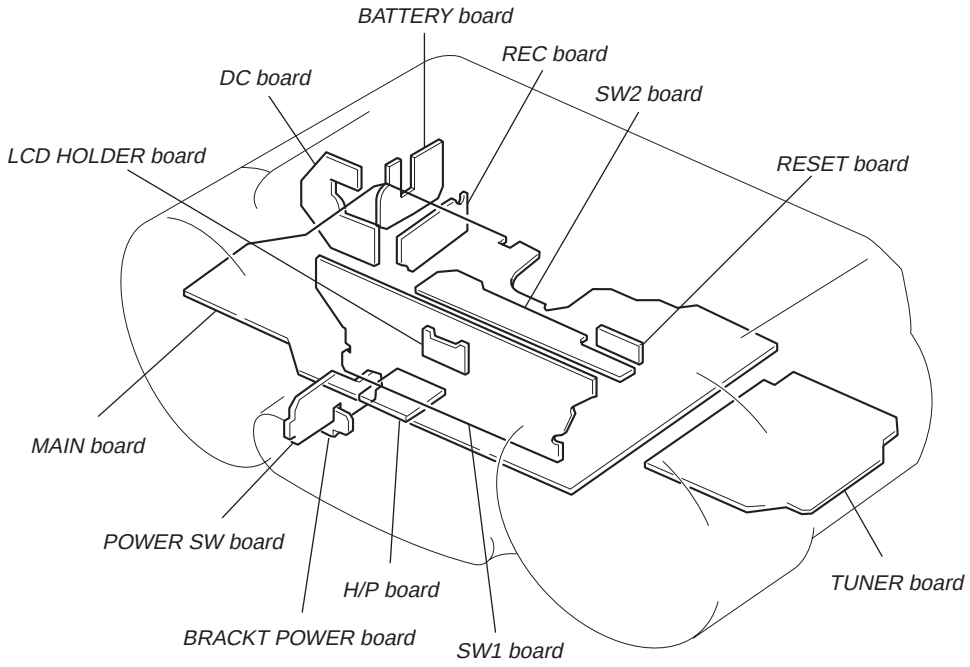



**Adjustment Location :** TUNER board (Component side)

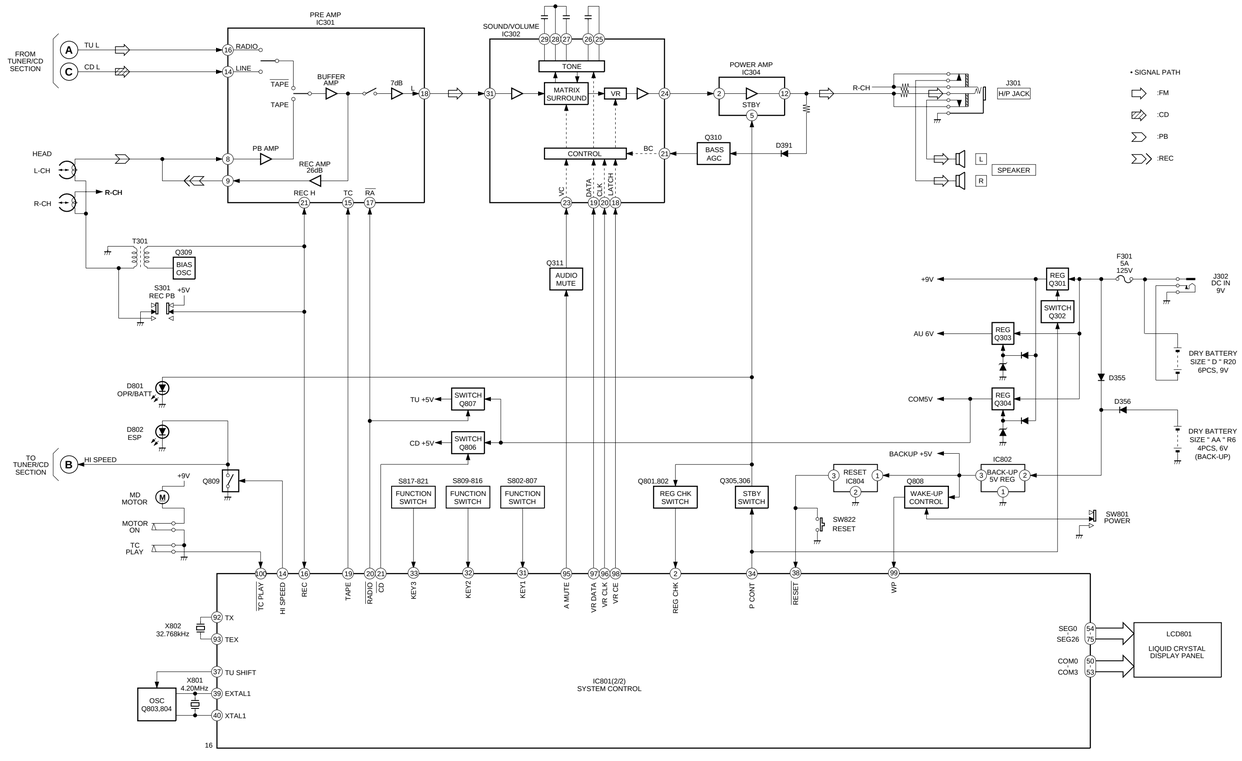

L3 : AM Tracking Adjustment
CT2 : AM Tracking Adjustment
L4 : AM Frequency Coverage Adjustment
L2 : FM Frequency Coverage Adjustment
CT1 : FM Tracking Adjustment
L1 : FM Tracking Adjustment
IC1
CFT1 : AM IF Alignment

# SECTIO 5
# DIAGRAMS

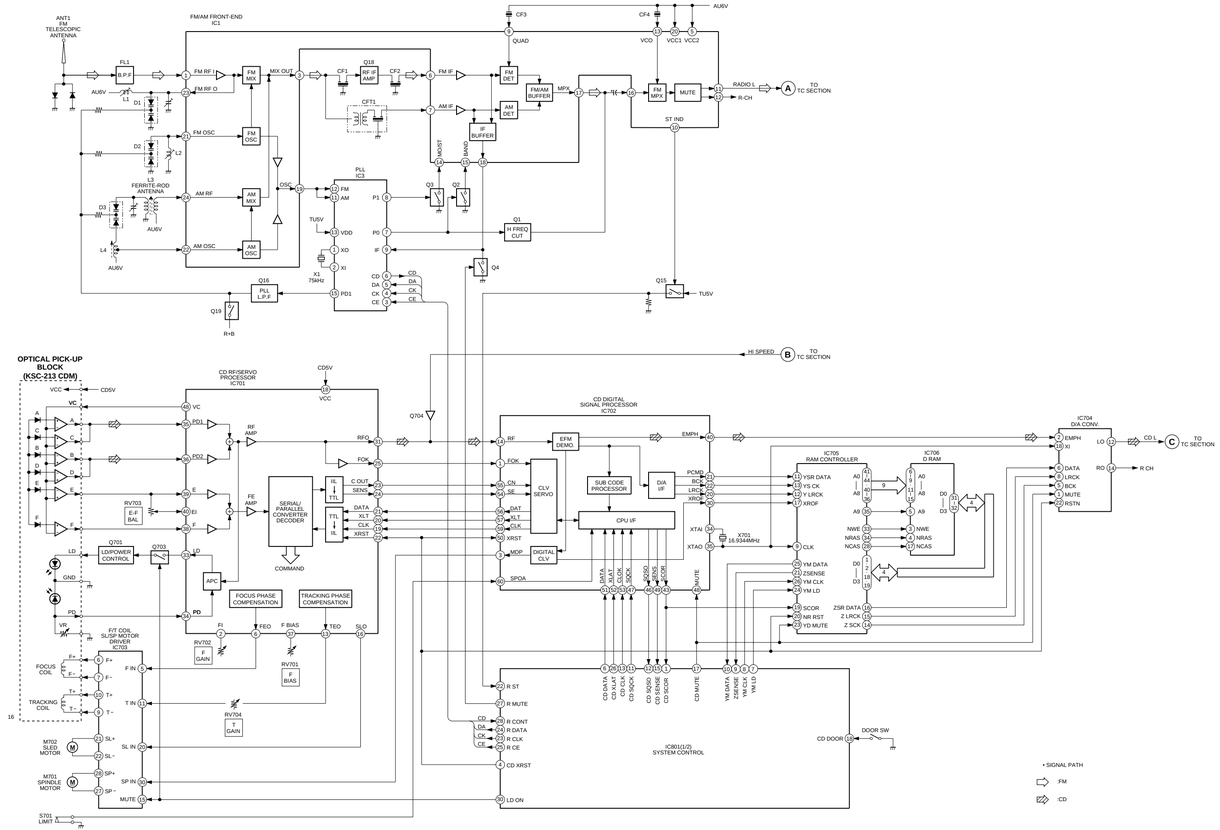
## 5-1. CIRCUIT BOARDS LOCATION



## 5-2. BLOCK DIAGRAM — TC SECTION —



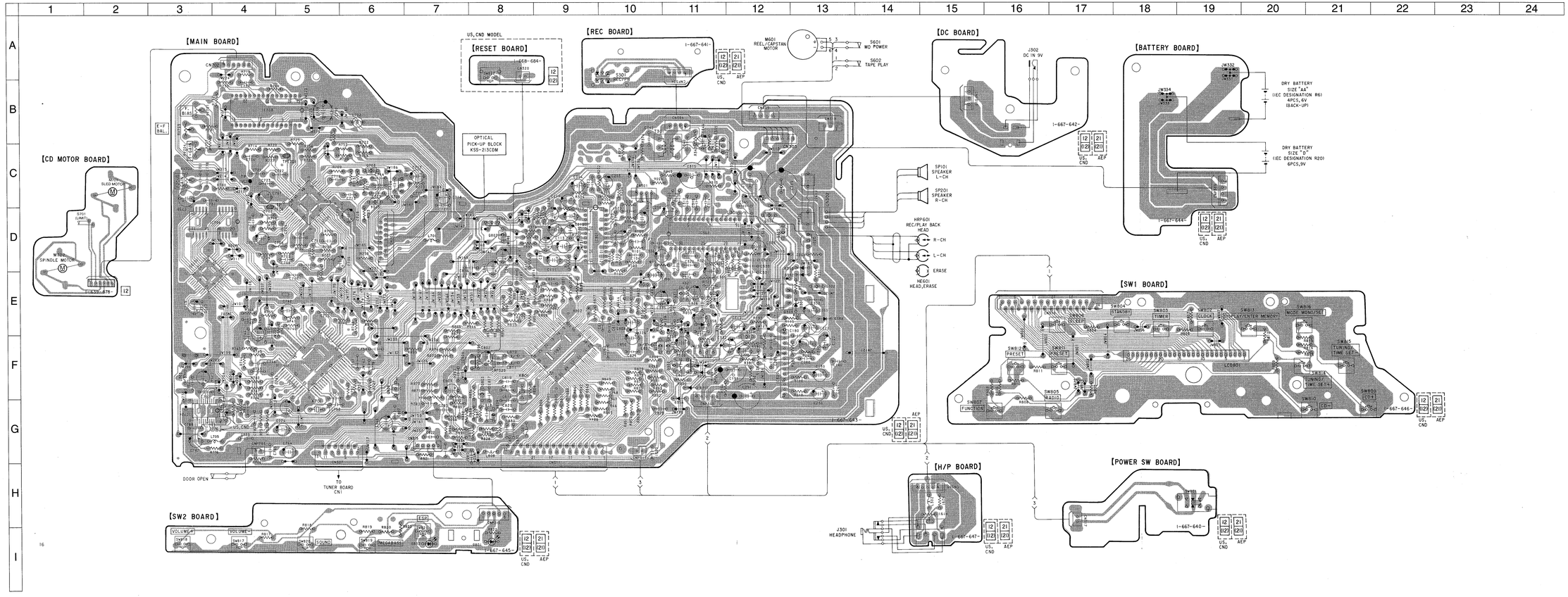

## 5-3. BLOCK DIAGRAM — TUNER/CD SECTION —



## 5-4. PRINTED WIRING BOARD — MAIN SECTION —

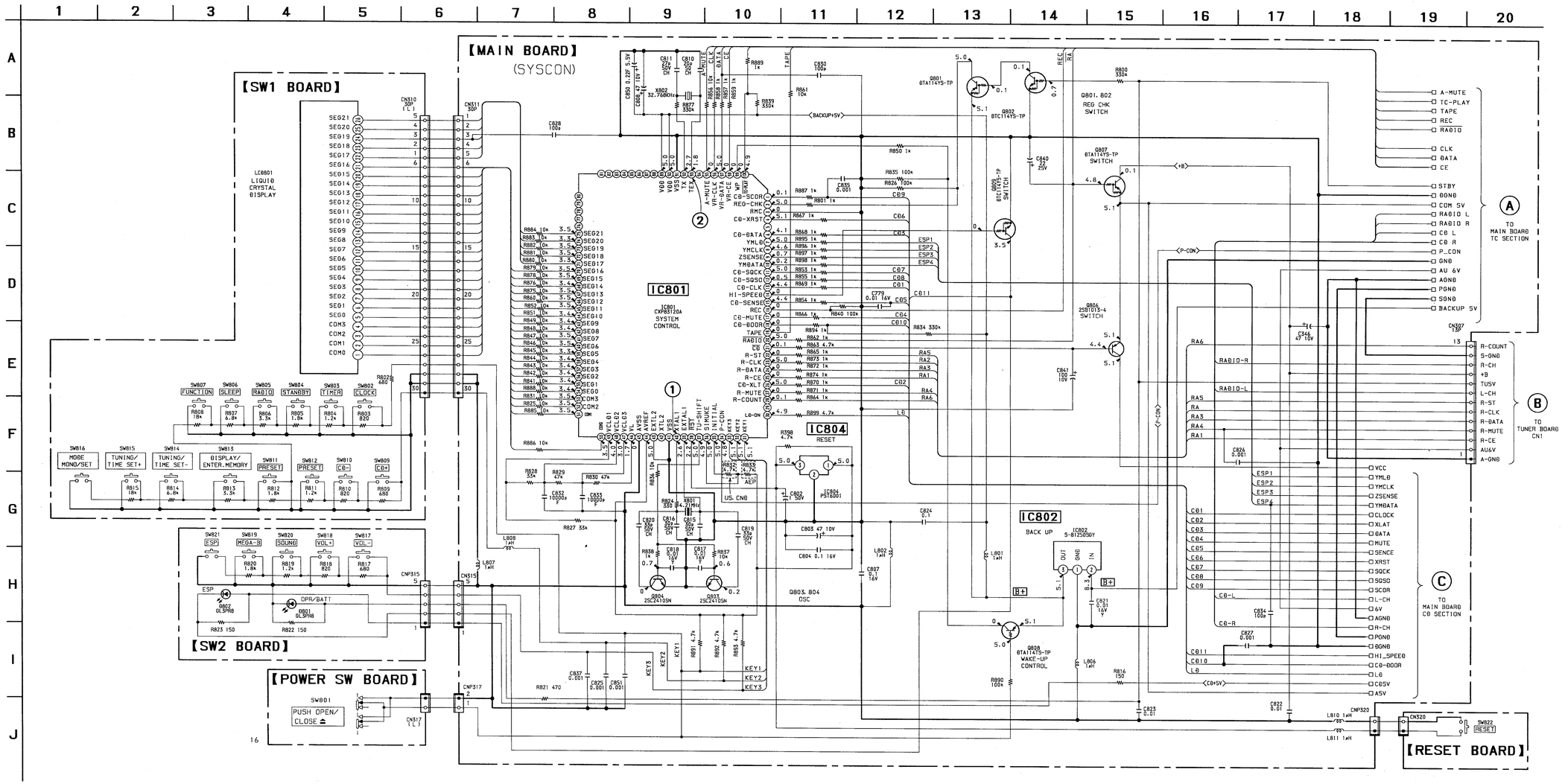
• Semiconductor Location

| Ref. No. | Location |
|---|---|
| D301 | E-13 |
| D302 | E-11 |
| D355 | F-11 |
| D356 | F-11 |
| D388 | E-13 |
| D390 | E-13 |
| D391 | F-11 |
| D392 | E-13 |
| D393 | D-13 |
| D701 | D-6 |
| D801 | I-8 |
| D802 | I-7 |
| IC301 | D-9 |
| IC302 | D-11 |
| IC305 | F-12 |
| IC701 | D-5 |
| IC702 | F-5 |
| IC703 | B-4 |
| IC704 | G-3 |
| IC705 | D-3 |
| IC706 | D-4 |
| IC801 | F-9 |
| IC802 | F-11 |
| IC804 | F-7 |
| Q301 | D-13 |
| Q302 | E-13 |
| Q303 | E-12 |
| Q304 | F-11 |
| Q305 | D-12 |
| Q306 | D-12 |
| Q309 | C-11 |
| Q310 | F-12 |
| Q311 | E-11 |
| Q701 | C-6 |
| Q703 | C-6 |
| Q704 | C-6 |
| Q801 | F-11 |
| Q802 | F-11 |
| Q803 | F-8 |
| Q804 | G-8 |
| Q805 | E-7 |
| Q806 | D-8 |
| Q807 | D-8 |
| Q808 | F-10 |
| Q809 | E-6 |




**Note:**
- ⟵ : parts extracted from the component side.
- ⟵ : parts extracted from the conductor side.
- ▒▒ : Pattern from the side which enables seeing.
- Abbreviation
  CND : Canadian model

## 5-5. SCHEMATIC DIAGRAM — SYSCON SECTION —



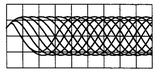

**Note:**

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▭ : panel designation.
- B+ : B+ Line.
- Power voltage is dc 12V and fed with regulated dc power supply from battery terminal.
  no mark : PB
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Abbreviation
  CND : Canadian model.

## 5-6. SCHEMATIC DIAGRAM — CD SECTION —

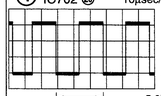
• **Waveform**

③ IC701 ㉛ 0.5V/div 0.5µsec/div



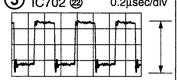
1.3 +0.3 −0.3 Vp-p

④ IC702 ㉘ 2.0V/div 10µsec/div



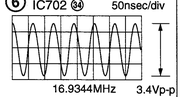
44kHz 5.0Vp-p

⑤ IC702 ㉒ 2.0V/div 0.2µsec/div



2.1MHz 6.0Vp-p

⑥ IC702 ㉞ 1.0V/div 50nsec/div

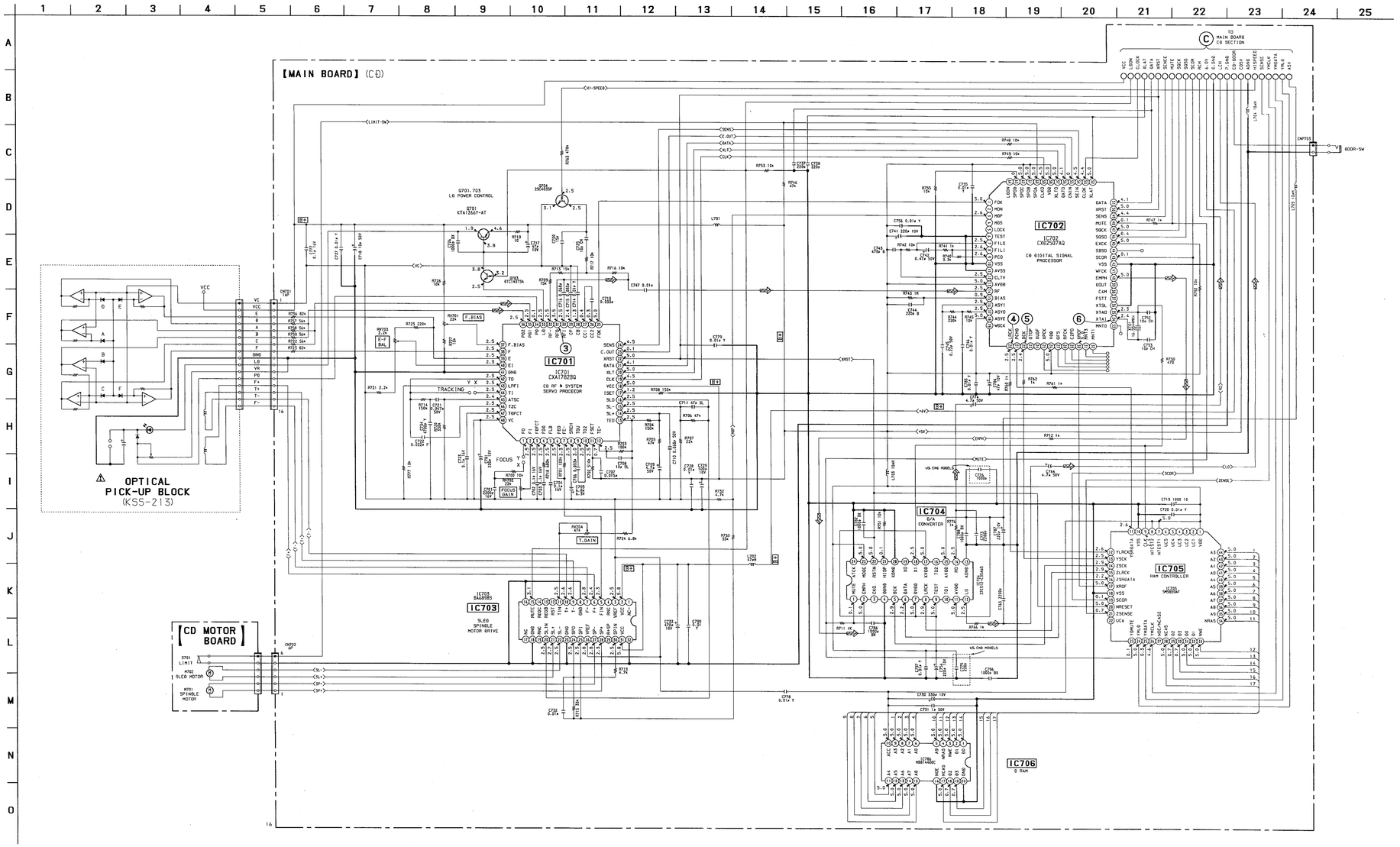


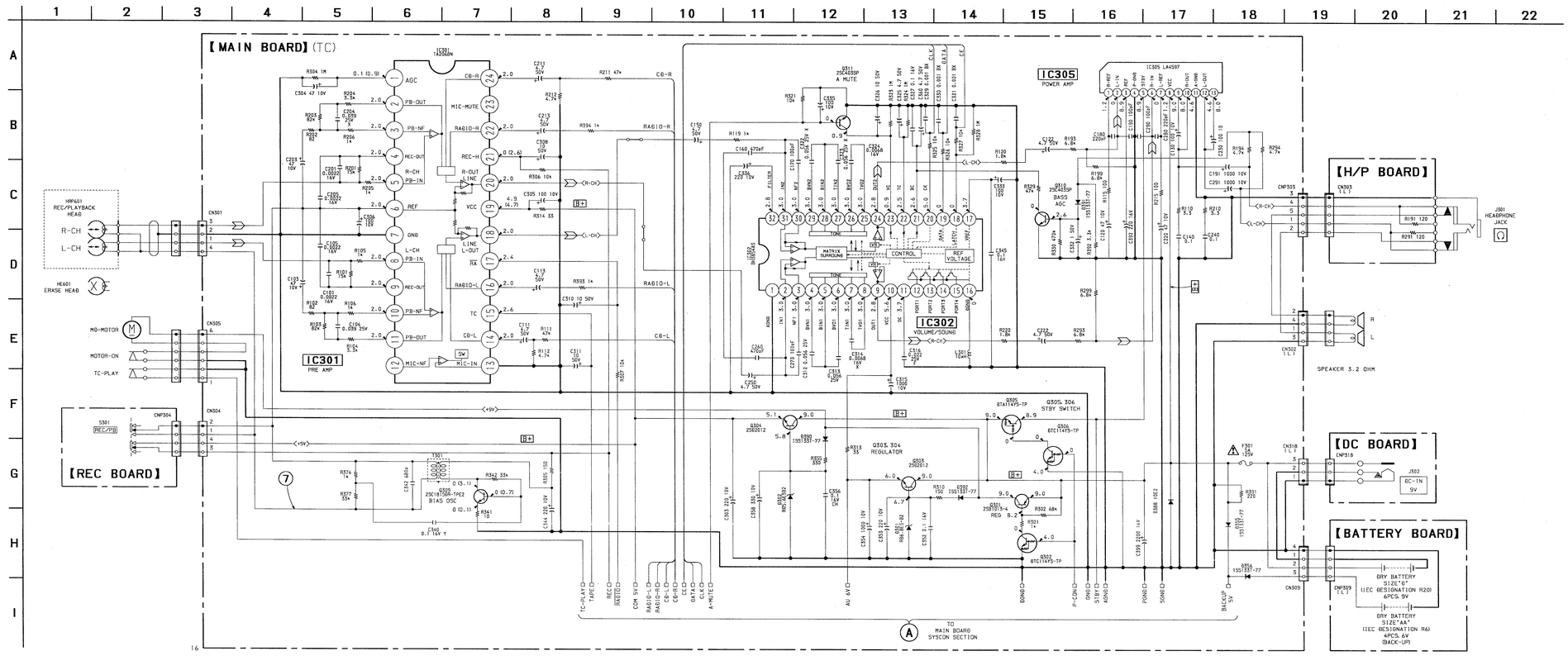
16.9344MHz 3.4Vp-p

**Note:**
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▭ : panel designation.

| **Note:** | **Note:** |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié. |

- B+ : B+ Line.
- ▭ : adjustment for repair.
- Power voltage is dc 12V and fed with regulated dc power supply from battery terminal.
  no mark : PLAY
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD
- Abbreviation
  CND : Canadian






• **Waveform**

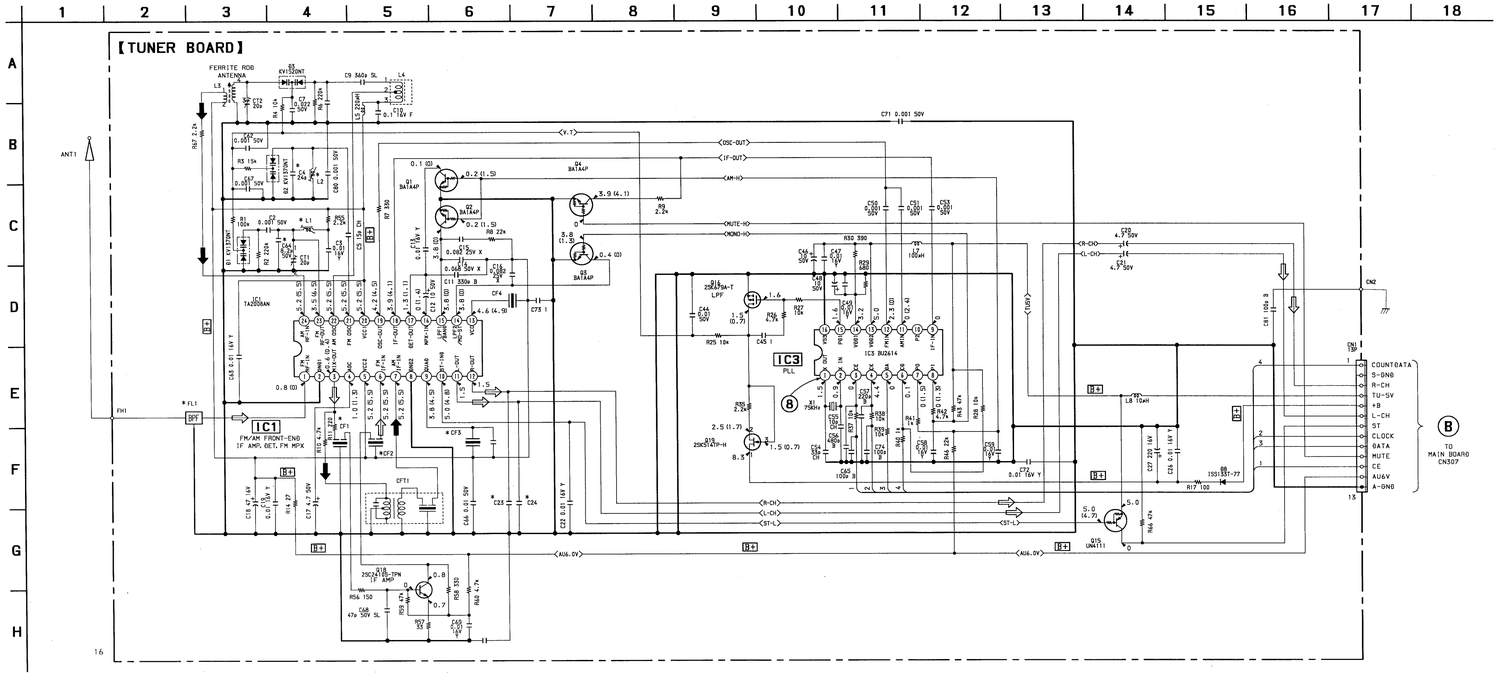
⑦ T301 REC — 1.0V/div, 10μsec/div — 64kHz — 4.0Vp-p

**Note:**
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- ▭ : panel designation.

| **Note:** | **Note:** |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié. |

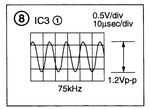
- B+ : B+ Line.
- Power voltage is dc 12V and fed with regulated dc power supply from battery terminal. no mark : PB ( ) : REC
- Waveforms are taken with a oscilloscope.
- Circled numbers refer to waveforms.
- Signal path. ▷ : PB (DECK A)

## 5-8. SCHEMATIC DIAGRAM — TUNER SECTION —




| REF. NO. | US, CND | AEP |
|---|---|---|
| C23, 24 | 1-161-055-00 0.022M,X | 1-161-053-00 0.015M,X |
| CF1, 2, 3 | 1-760-127-11 | 1-760-468-11 |

• **Waveform**



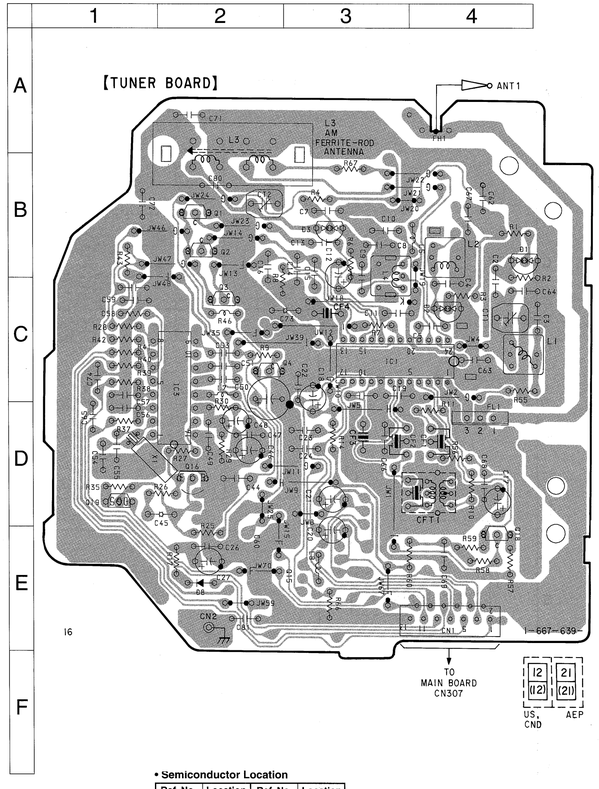

**Note:**
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- B+ : B+ Line.
- Power voltage is dc 12V and fed with regulated dc power supply from battery terminal.
  no mark : FM
  ( ) : AM
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : AM
- Abbreviation
  CND : Canadian model







## 5-9. PRINTED WIRING BOARD — TUNER SECTION —




• **Semiconductor Location**

| Ref. No. | Location | Ref. No. | Location |
|---|---|---|---|
| D1 | B-4 | Q1 | B-2 |
| D2 | B-4 | Q2 | B-2 |
| D3 | B-3 | Q3 | B-2 |
| D8 | E-2 | Q4 | C-2 |
| | | Q15 | D-3 |
| IC1 | C-3 | Q16 | D-2 |
| IC3 | C-2 | Q18 | D-4 |
| | | Q19 | D-1 |

**Note:**
- ——○—— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ▒▒▒ : Pattern from the side which enables seeing.
- Abbreviation
  CND : Canadian model

## 5-10. IC PIN FUNCTION

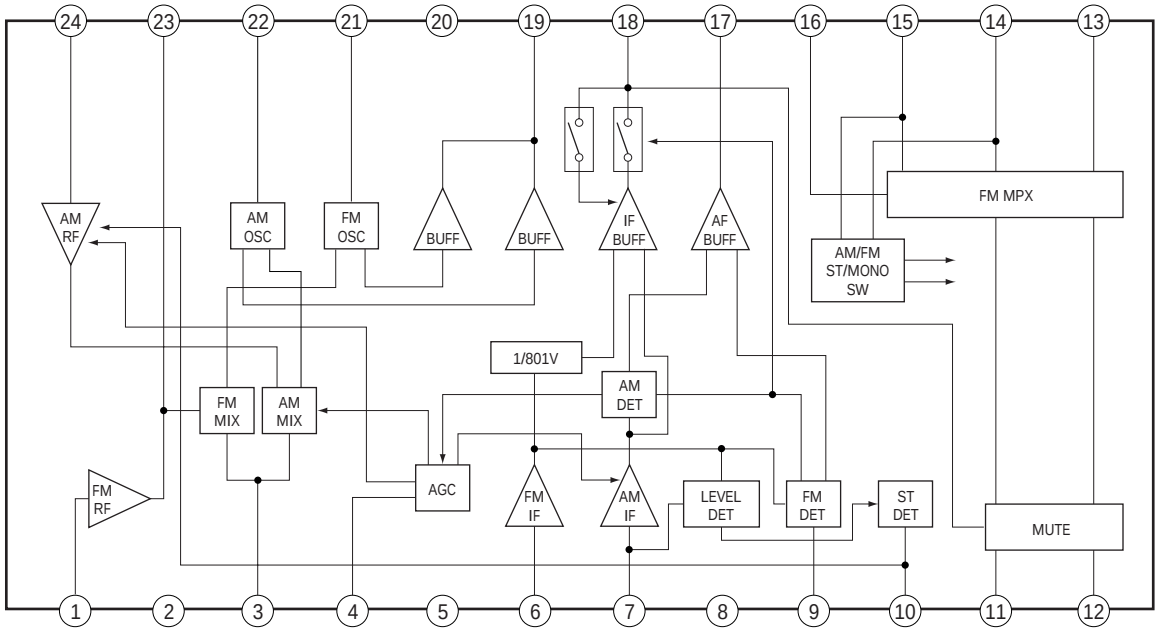
**• IC801 CXP83120A**

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 1 | PE2/INT2 | I | CD subcode interrupt terminal |
| 2 | PE3/INT3/NMI | I | Regulator check terminal |
| 3 | PE4/RMC | I | Remote control signal receive port |
| 4 | PE5/PWM | O | CD system reset signal |
| 5 | PE6/TO/ADJ | O | |
| 6 | PB0/CINT | O | CD data output signal |
| 7 | PB1/CSO | O | Interface latch clock of D-RAM |
| 8 | PB2/SCK0 | O | Interface shift clock of D-RAM |
| 9 | PB3/SI0 | I | Interface status output of D-RAM |
| 10 | PB4/SO0 | O | Interface serial data of D-RAM |
| 11 | PB5/SCK1 | O | CD SUB-Q clock output |
| 12 | PB6/SI1 | I | CD SUB-Q signal out input |
| 13 | PB7/SO1 | O | CD clock output |
| 14 | PC0 | O | High speed operation when D-RAM data is not present |
| 15 | PC1 | I | CD sense signal input |
| 16 | PC2 | I | Synchro record operation after record is recognized |
| 17 | PC3 | O | CD mute output |
| 18 | PC4 | I | CD door open/close detection |
| 19 | PC5 | O | Function tape output |
| 20 | PC6 | O | Function radio output |
| 21 | PC7 | O | Function CD output |
| 22 | PH0 | I | Radio stereo/mono judgment signal |
| 23 | PH1 | O | Clock output to PLL IC |
| 24 | PH2 | O | Data output to PLL IC |
| 25 | PH3 | O | Chip enable signal output to PLL IC |
| 26 | PH4 | O | CD latch output signal |
| 27 | PH5 | O | Radio mute output |
| 28 | PH6 | I | PLL count data input |
| 29 | — | — | No Connect |
| 30 | PA0/AN0 | I | CD LD-ON signal output |
| 31 | PA1/AN1 | I | Key 1 input |
| 32 | PA2/AN2 | I | Key 2 input |
| 33 | PA3/AN3 | I | Key 3 input |
| 34 | PA4/AN4 | O | POWER CONTROL controlling terminal |
| 35 | PA5/AN5 | O | Momentary “L” output after reset for destination check |
| 36 | PA6/AN6 | I | Read A/D value after reset for destination check |
| 37 | PA7/AN7 | O | Radio shift clock output |
| 38 | RST | I | Microprocessor reset signal input |
| 39 | EXTAL1 | I | 4.20MHz clock |
| 40 | XTAL1 | | 4.20MHz clock |
| 41 | VSS | | Ground |
| 42 | — | — | No Connect |
| 43 | EXTAL2 | I | Ground |
| 44 | AVREF | | A/D converter reference voltage |
| 45 | AVSS | | A/D converter ground |
| 46 | VL | O | LCD bias control terminal |
| 47 | VLC3 | | LCD bias power terminal 3 |
| 48 | VLC2 | | LCD bias power terminal 2 |
| 49 | VLC1 | | LCD bias power terminal 1 |
| 50 | COMO | O | LCD common 0 output |

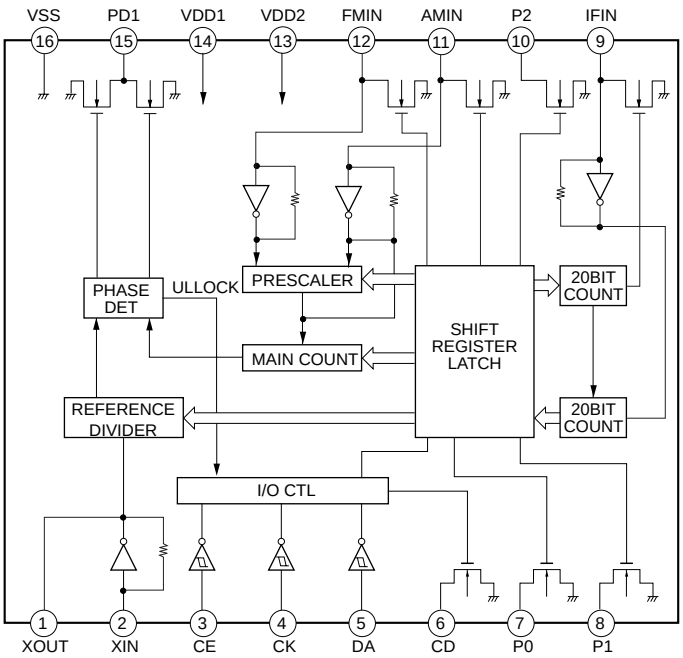
| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 51 | COM1 | O | LCD common 1 output |
| 52 | COM2 | O | LCD common 2 output |
| 53 | COM3 | O | LCD common 3 output |
| 54 | SEG0 | O | LCD segment 0 |
| 55 | SEG1 | O | LCD segment 1 |
| 56 | SEG2 | O | LCD segment 2 |
| 57 | SEG3 | O | LCD segment 3 |
| 58 | SEG4 | O | LCD segment 4 |
| 59 | SEG5 | O | LCD segment 5 |
| 60 | SEG6 | O | LCD segment 6 |
| 61 | SEG7 | O | LCD segment 7 |
| 62 | SEG8 | O | LCD segment 8 |
| 63 | SEG9 | O | LCD segment 9 |
| 64 | SEG10 | O | LCD segment 10 |
| 65 | SEG11 | O | LCD segment 11 |
| 66 | SEG12 | O | LCD segment 12 |
| 67 | SEG13 | O | LCD segment 13 |
| 68 | SEG14 | O | LCD segment 14 |
| 69 | SEG15 | O | LCD segment 15 |
| 70 | SEG16/PD0 | O | LCD segment 16 |
| 71 | SEG17/PD1 | O | LCD segment 17 |
| 72 | SEG18/PD2 | O | LCD segment 18 |
| 73 | SEG19/PD3 | O | LCD segment 19 |
| 74 | SEG20/PD4 | O | LCD segment 20 |
| 75 | SEG21/PD5 | O | LCD segment 21 |
| 76 ~ 88 | — | — | No Connect |
| 89 | VDD | | Microprocessor power supply 5 V |
| 90 | VDD | | VDD terminal |
| 91 | VSS | | Microprocessor ground |
| 92 | TX | | 32.768kHz clock |
| 93 | TEX | I | 32.768kHz clock |
| 94 | — | — | No Connect |
| 95 | SEG36/PG4 | O | Audio mute output |
| 96 | SEG37/PG5 | O | Volume clock output |
| 97 | SEG38/PG6 | O | Volume data output |
| 98 | SEG39/PG7 | O | Volume chip enable output |
| 99 | PE0/INT0/EC0 | I | Wake-up (interrupt) input |
| 100 | PE1/INT1/EC1 | I | Tape play signal input |

## 5-11. IC BLOCK DIAGRAMS

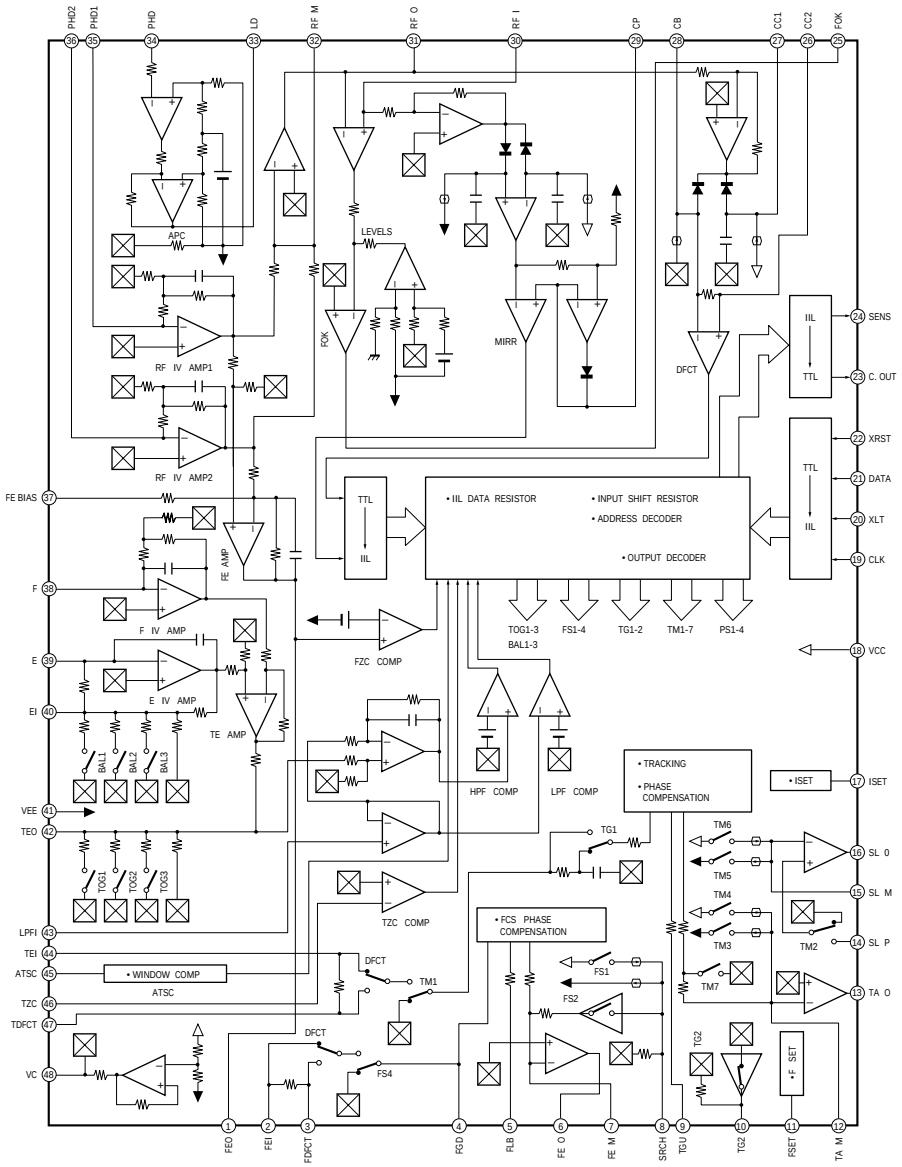
### IC1 TA2008AN



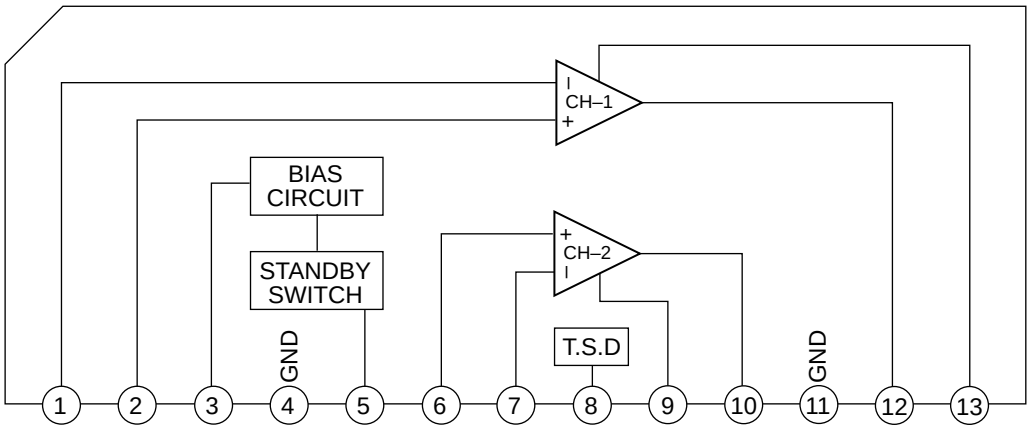

### IC3 BU2614



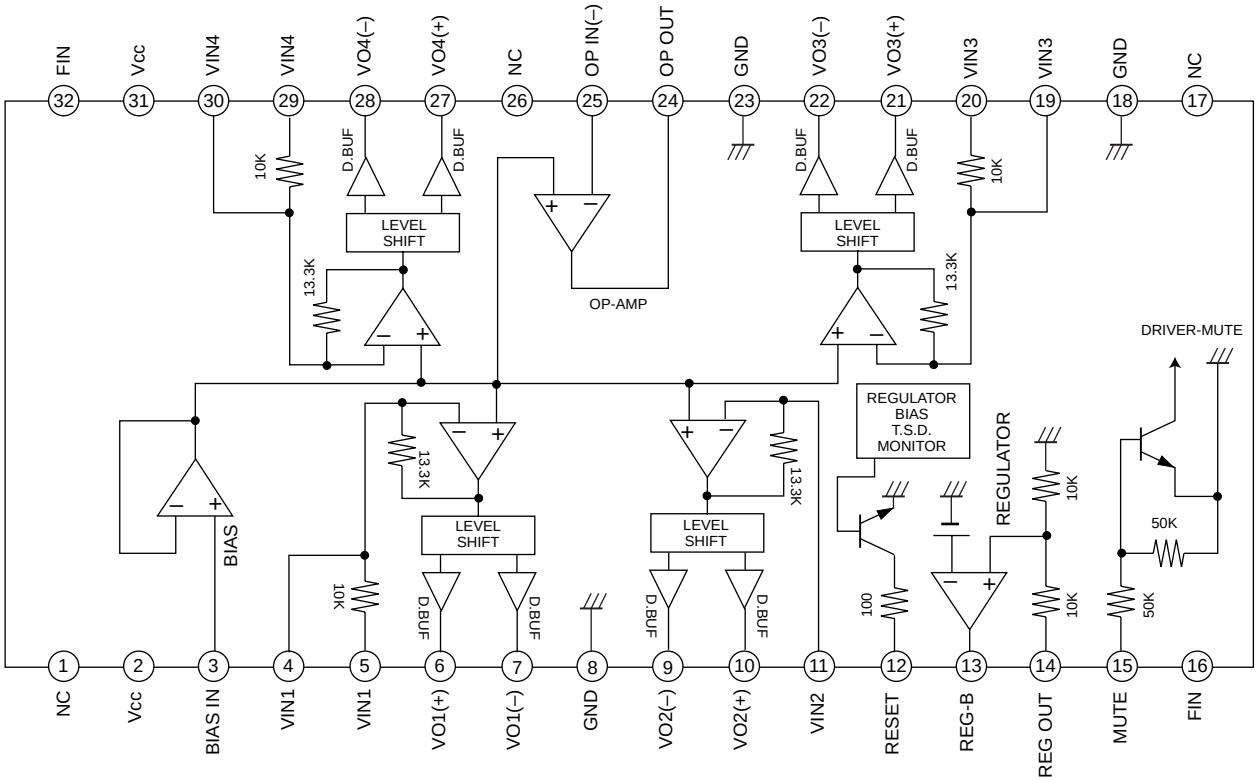
**IC701 CXA1782BQ**



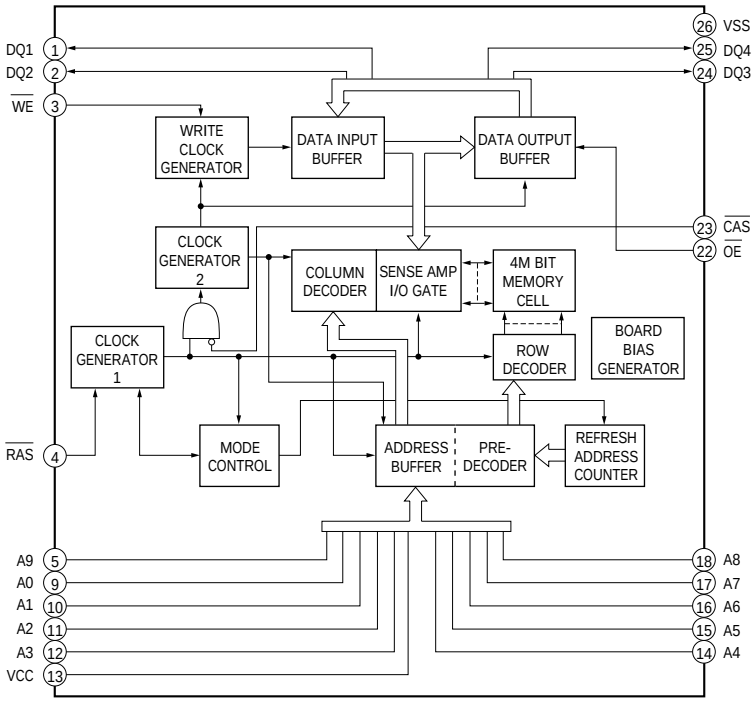

**IC305 LA4597**



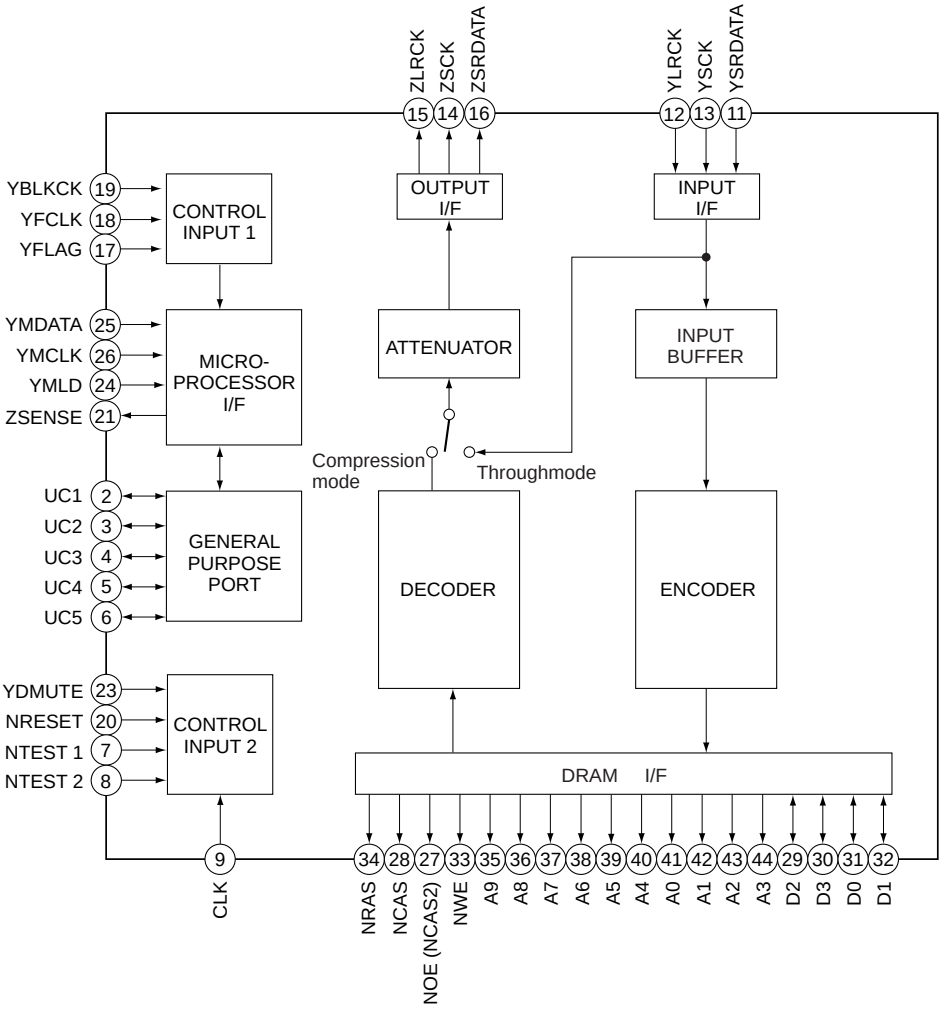
**IC703 BA6898S**



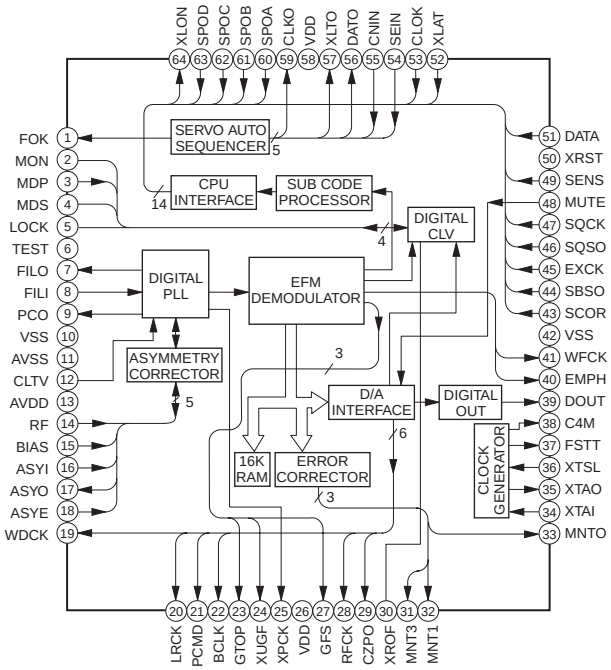

**IC706 MB814400C**



**IC705 SM5859AF**




**IC702 CXD2507AQ**



# SECTION 6
# EXPLODED VIEWS

NOTE:

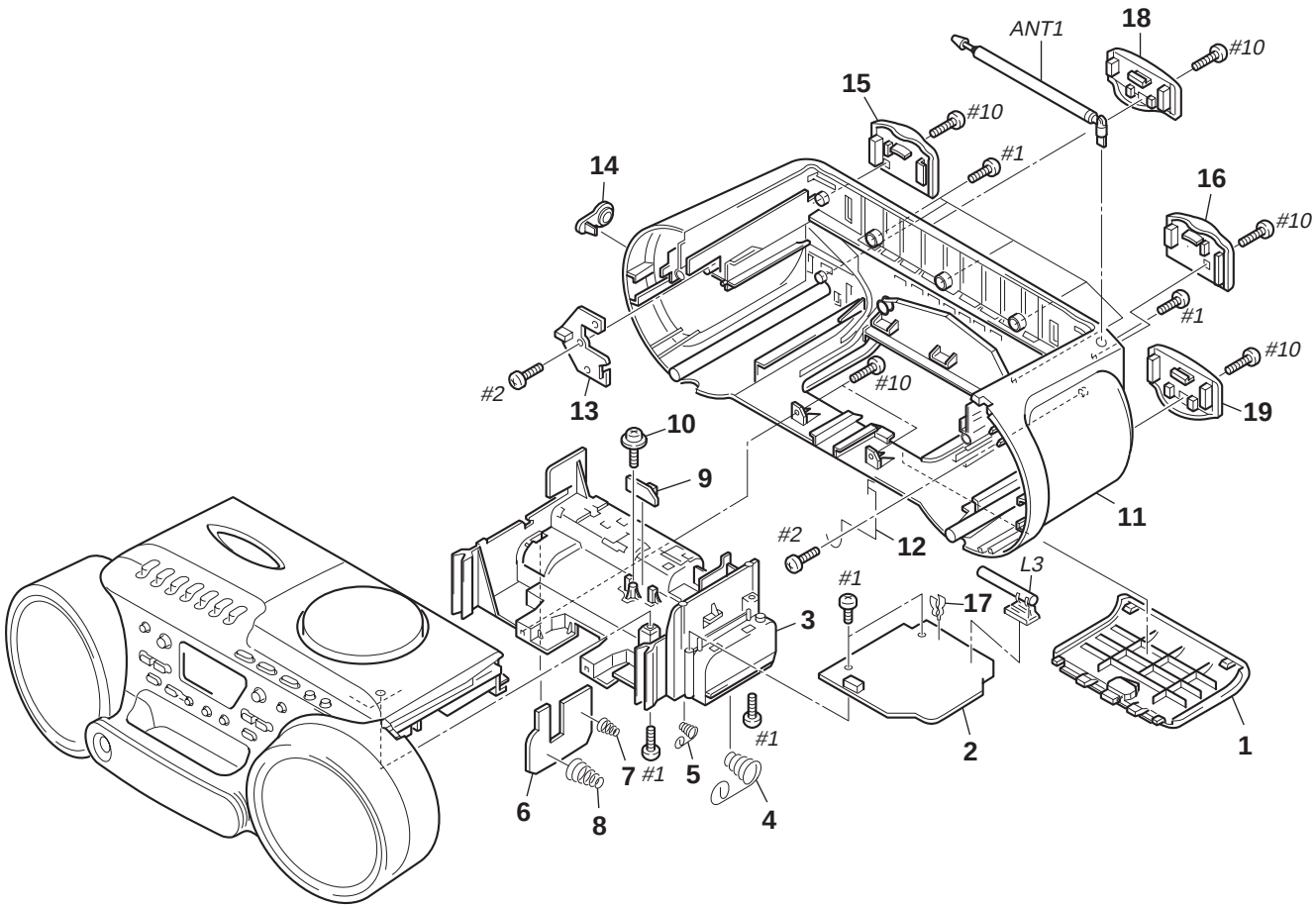
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Color Indication of Appearance Parts Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ Parts of Color ↑ Cabinet's Color
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  CND : Canadian

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

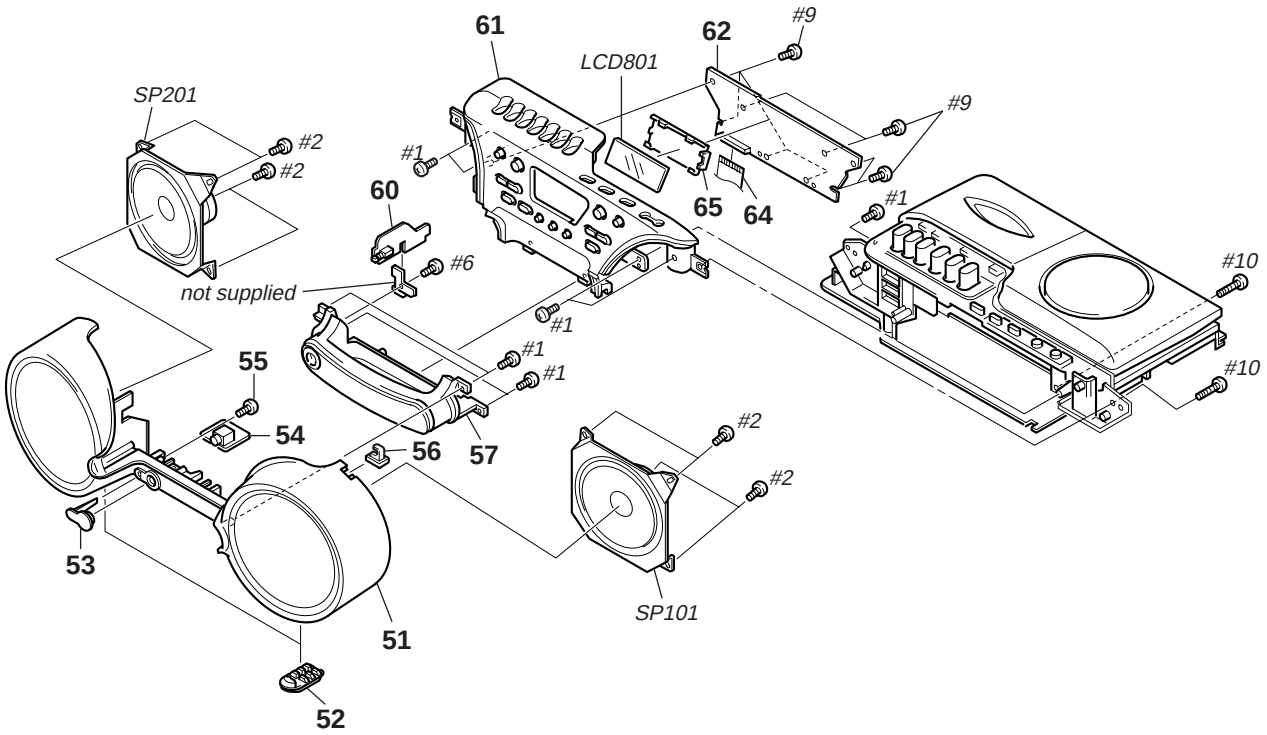
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

## 6-1. REAR CABINET SECTION




| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| 1 | 3-017-929-01 | LID, BATTERY CASE (YELLOW) | |
| 1 | 3-017-929-11 | LID, BATTERY CASE (BLACK) (AEP) | |
| * 2 | A-3306-941-A | TUNER BOARD, COMPLETE (US, CND) | |
| * 2 | A-3306-948-A | TUNER BOARD, COMPLETE (AEP) | |
| 3 | 3-017-964-01 | CASE, BATTERY (YELLOW) | |
| 3 | 3-017-964-11 | CASE, BATTERY (BLACK) (AEP) | |
| 4 | 3-017-953-01 | SPRING (L) (+, –), BATTERY | |
| 5 | 3-017-955-01 | SPRING (S) (+, –), BATTERY | |
| * 6 | 1-667-644-11 | BATTERY BOARD | |
| 7 | 3-939-057-01 | SPRING (–), BACK UP | |
| 8 | 3-017-954-01 | SPRING(L) (–), BATTERY | |
| * 9 | 1-668-684-11 | RESET BOARD (US,CND) | |
| 10 | 3-911-135-01 | SCREW (2.6 × 10), (+PWH) TAPPING | |
| 11 | 3-017-947-01 | CABINET, REAR (YELLOW) | |
| 11 | 3-017-947-11 | CABINET, REAR (BLACK) (AEP) | |
| 12 | 3-017-948-01 | TERMINAL, ANTENNA | |
| * 13 | 1-667-642-11 | DC BOARD | |
| 14 | 3-352-215-11 | PACKING (JACK) | |
| 15 | 3-017-949-01 | RUBBER (1), REAR | |
| 16 | 3-017-950-01 | RUBBER (2), REAR | |
| 17 | 1-533-217-31 | FUSE HOLDER | |
| 18 | 3-017-967-01 | RUBBER (3), REAR | |
| 19 | 3-017-968-01 | RUBBER (4), REAR | |
| ANT1 | 1-501-947-11 | ANTENNA, TELESCOPIC (YELLOW) | |
| ANT1 | 1-501-947-21 | ANTENNA, TELESCOPIC (WHITE) (AEP) | |
| L3 | 1-501-762-11 | ANTENNA,FERRITE-ROD(MW) | |

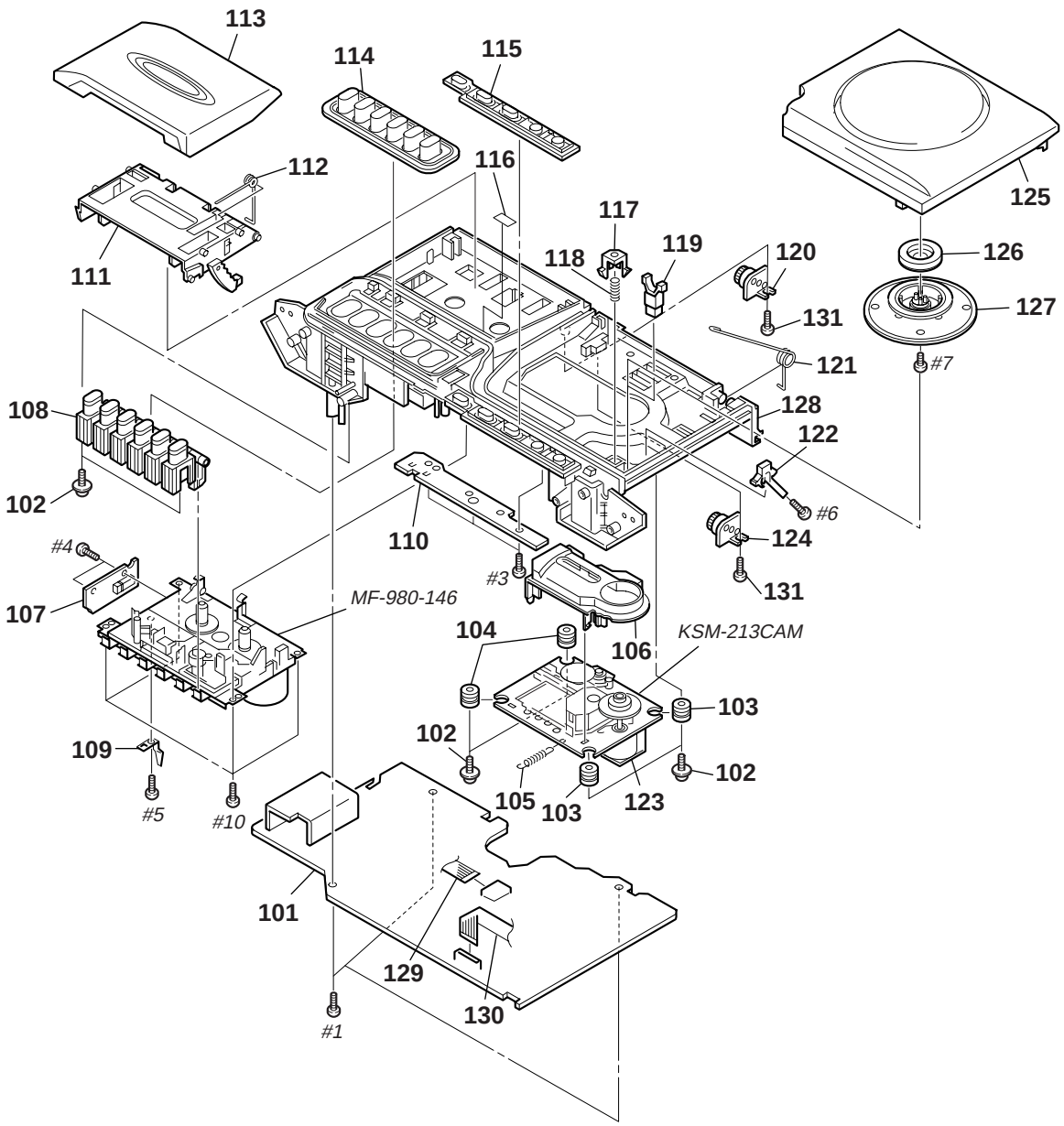
## 6-2. FRONT CABINET SECTION




| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| 51 | X-3374-446-1 | CABINET SUB ASSY, FRONT (YELLOW) (US,CND) | |
| 51 | X-3375-618-1 | CABINET SUB ASSY, FRONT (BLACK) (AEP) | |
| 52 | 3-017-958-01 | RUBBER, FRONT | |
| 53 | 3-352-215-11 | PACKING (JACK) | |
| * 54 | 1-667-647-11 | H/P BOARD | |
| 55 | 3-911-135-01 | SCREW (2.6 × 10), (+PWH) TAPPING | |
| 56 | 3-017-969-01 | CATCHER, ANTENNA | |
| 57 | X-3374-444-1 | HANDLE SUB ASSY (US, CND) | |
| 57 | X-3374-445-1 | HANDLE SUB ASSY (AEP) | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| * 60 | 1-667-640-11 | POWER SW BOARD | |
| 61 | X-3374-448-2 | PANEL SUB ASSY, CONTROL (US,CND) | |
| 61 | X-3375-663-1 | PANEL SUB ASSY, CONTROL (AEP) | |
| * 62 | 1-667-646-11 | SW1 BOARD | |
| 64 | 1-782-831-11 | WIRE PARALLEL (30 CORE) | |
| 65 | 3-017-928-01 | HOLDER, LCD | |
| SP101 | 1-505-731-11 | SPEAKER (10CM) (R-CH) | |
| SP201 | 1-505-731-11 | SPEAKER (10CM) (L-CH) | |
| LCD801 | 1-801-875-11 | DISPLAY PANEL, LIQUID CRYSTAL | |

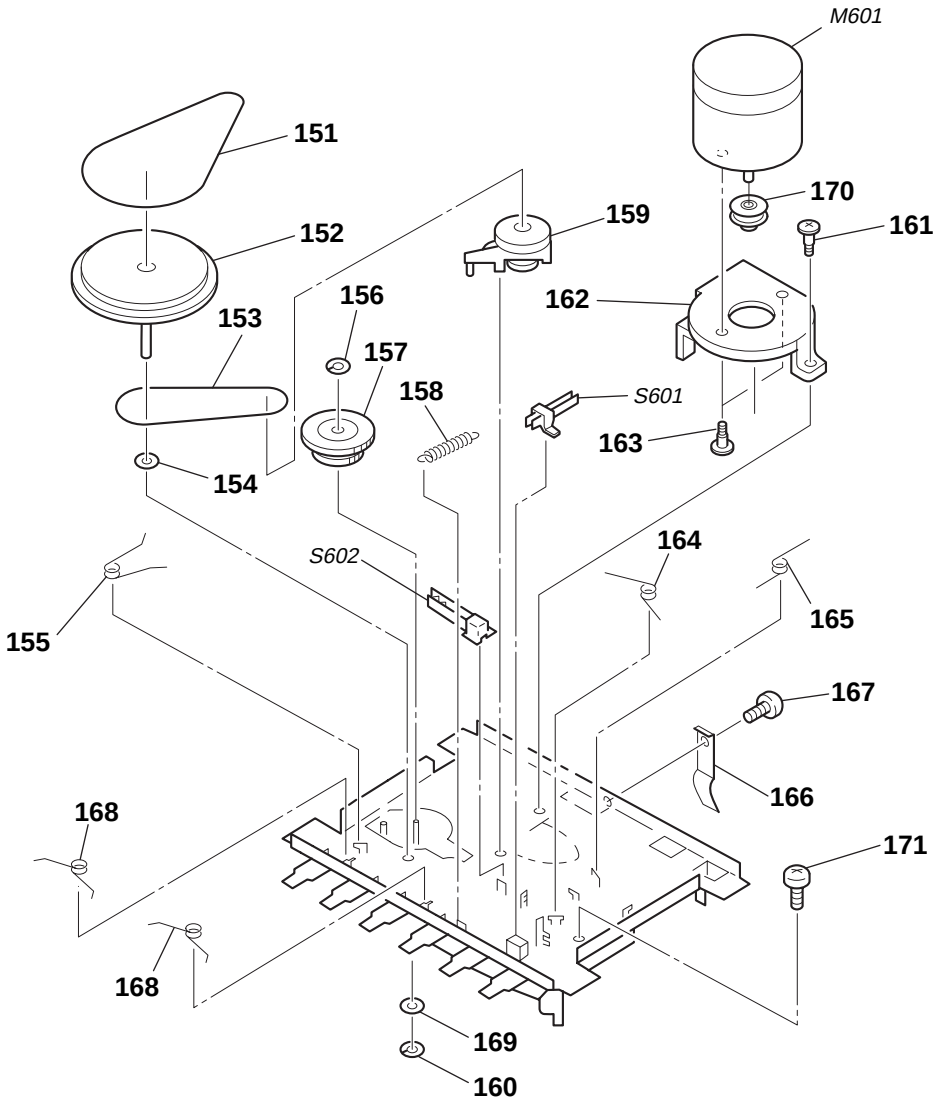
## 6-3. UPPER CABINET SECTION




| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| * 101 | A-3293-761-A | MAIN BOARD, COMPLETE (US, CND) | |
| * 101 | A-3293-763-A | MAIN BOARD, COMPLETE (AEP) | |
| 102 | 3-911-135-01 | SCREW (2.6 × 10), (+PWH) TAPPING | |
| 103 | 3-931-379-31 | RUBBER, VIBRATION PROOF | |
| 104 | 3-931-379-21 | RUBBER, VIBRATION PROOF | |
| 105 | 3-017-957-01 | SPRING, TENSION | |
| 106 | 3-923-736-01 | COVER, CD | |
| * 107 | 1-667-641-11 | REC BOARD | |
| 108 | X-3374-447-1 | BUTTON SUB ASSY, MD | |
| 109 | 3-017-937-01 | BRACKET, REC | |
| 110 | 1-667-645-11 | SW2 BOARD | |
| 111 | 3-017-933-01 | HOLDER, CASSETTE | |
| 112 | 3-017-942-01 | SPRING, CASSETTE UP | |
| 113 | X-3374-449-1 | LID SUB ASSY, CASSETTE | |
| 114 | 3-017-941-01 | PACKING (MD) | |
| 115 | 3-017-945-01 | PACKING (VOLUME) | |

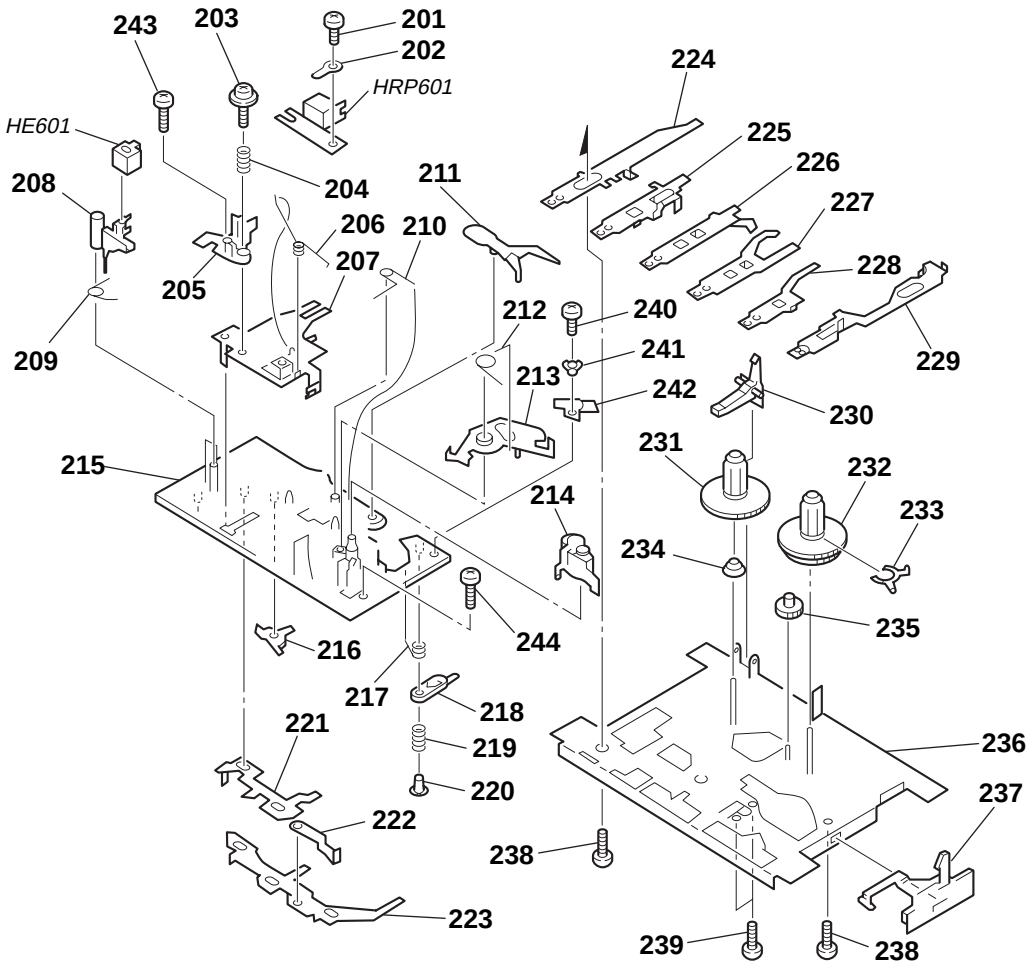
| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| 116 | 3-017-946-01 | WINDOW, AZIMUTH | |
| 117 | 3-017-878-11 | SLIDER, PUSH | |
| 118 | 3-023-761-01 | SPRING, CD COIL | |
| 119 | 1-692-960-11 | SWITCH, PUSH (1 KEY) | |
| 120 | 3-926-926-01 | GEAR, DAMPER | |
| 121 | 3-017-943-01 | SPRING (CD UP) | |
| 122 | 3-017-963-01 | BRACKET (CLOSE) | |
| 123 | 1-639-678-12 | CD MOTOR BOARD | |
| 124 | 3-351-377-11 | GEAR, DAMPER | |
| 125 | 3-017-934-01 | CD LID | |
| 125 | 3-017-934-11 | CD LID (AEP) | |
| 126 | 1-452-952-11 | MAGNET | |
| 127 | 3-017-951-01 | PLATE, CHUCKING | |
| 128 | X-3374-494-1 | CABINET SUB ASSY, UPPER | |
| 129 | 1-782-832-11 | WIRE,PARALLEL(14 CORE) | |
| 130 | 1-782-830-11 | WIRE, PARALLEL (16 CORE) | |
| 131 | 3-023-759-01 | SCREW +B 3 × 10 | |

## 6-4. MECHANISM DECK SECTION-1
## (MF-980-146)



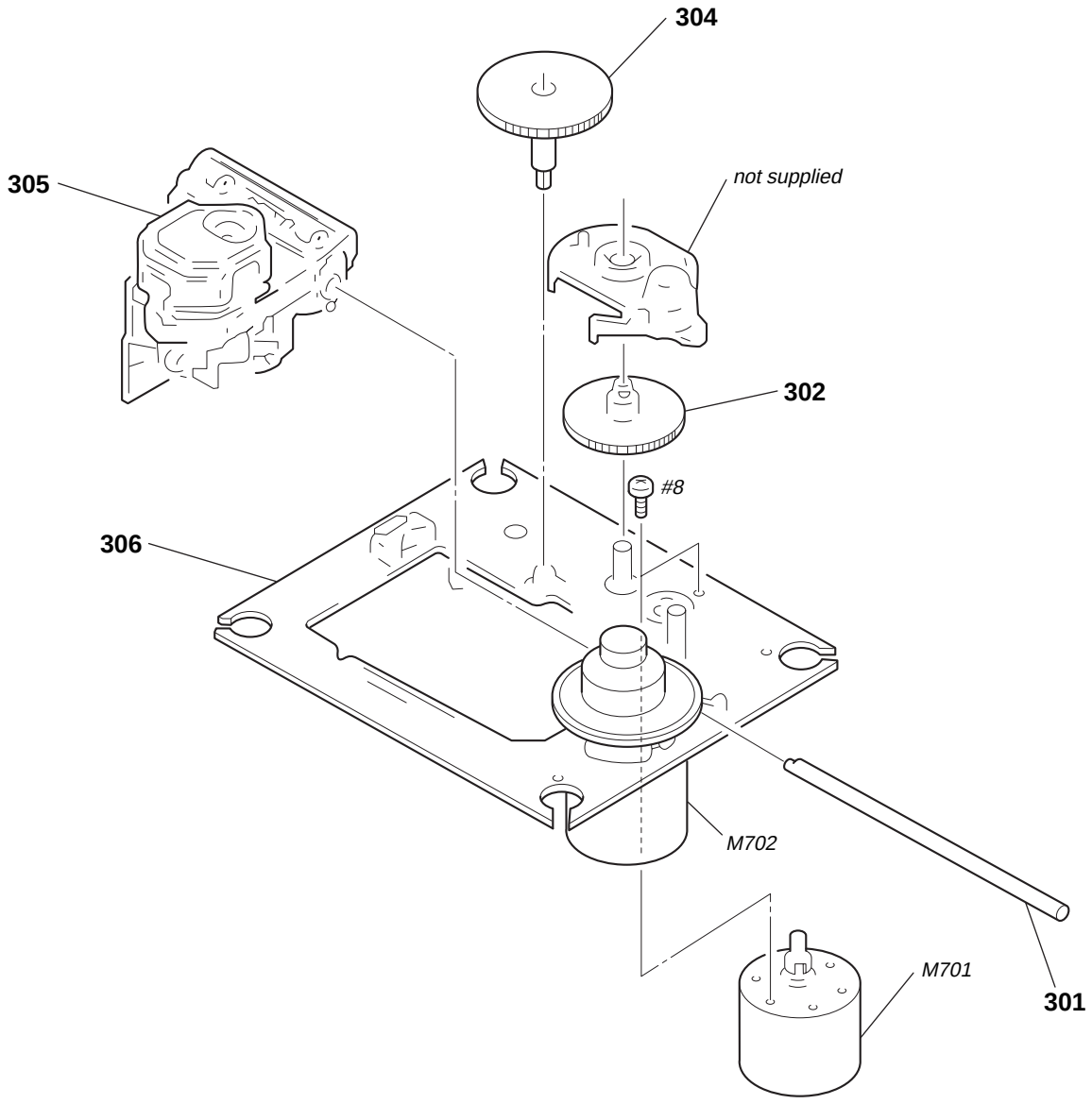

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| 151 | 3-933-843-01 | BELT, MAIN | |
| 152 | 3-933-834-01 | FLYWHEEL ASSY | |
| 153 | 3-933-833-01 | BELT, RF | |
| 154 | 3-933-858-01 | WASHER, P | |
| 155 | 3-933-811-01 | SPRING, E ACTUATOR | |
| 156 | 3-933-856-01 | CUT, P WASHER | |
| 157 | 3-348-353-01 | GEAR, CAM | |
| 158 | 3-913-436-01 | SPRING (S), PLAY BUTTON LEVER | |
| 159 | 3-933-832-01 | CLUTCH ASSY, RF | |
| 160 | 3-933-857-01 | CUT, P WASHER | |
| 161 | 3-933-844-01 | SCREW, MB | |
| 162 | 3-933-840-01 | BRACKET, MOTOR | |
| 163 | 3-933-841-01 | SCREW, MOTOR COLLER | |
| 164 | 3-933-812-01 | SPRING, P.S LEVER | |
| 165 | 3-933-815-01 | SPRING, REC BUTTON LEVER | |
| 166 | 3-348-367-01 | PLATE, SP, PACK RETAINER | |
| 167 | 3-933-849-01 | SCREW (2 × 3), DELTITE | |
| 168 | 3-933-809-01 | SPRING (A), BUTTON LEVER | |
| 169 | 3-913-442-01 | WASHER, P | |
| 170 | 3-933-842-01 | MOTOR PULLEY | |
| 171 | 3-933-848-01 | SCREW (M2 × 3), C TAPPING | |
| S601 | 1-762-658-11 | SWITCH, LEAF (MSW-1541T) | |
| S602 | 1-762-819-11 | SWITCH, LEAF | |
| M601 | 1-698-727-11 | MOTOR (EG-530AD-9B) | |

## 6-5. MECHANISM DECK SECTION-2
## (MF-980-146)




| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| 201 | 3-933-852-01 | SCREW (M2 × 3), + BIND | |
| 202 | 3-933-860-01 | PLATE, LUG | |
| 203 | 3-933-854-01 | SCREW (M2 × 7), AZIMUTH | |
| 204 | 3-933-822-01 | SPRING, AZIMUTH | |
| 205 | 3-933-819-01 | BASE, HEAD | |
| 206 | 3-933-820-01 | SPRING, PANEL (P) | |
| 207 | 3-933-818-01 | PANEL, HEAD | |
| 208 | 3-933-821-01 | ARM, MG | |
| 209 | 3-933-816-01 | SPRING, MG ARM | |
| 210 | 3-933-823-01 | SPRING, M CONTROL | |
| 211 | 3-933-828-01 | LEVER, SENSING | |
| 212 | 3-933-829-01 | SPRING, GEAR PLATE | |
| 213 | 3-933-830-01 | PLATE ASSY, GEAR | |
| 214 | 3-933-825-01 | ARM ASSY, PINCH ROLLER | |
| 215 | 3-933-796-01 | BASE ASSY | |
| 216 | 3-933-814-01 | STOPPER, PR | |
| 217 | 3-933-805-01 | SPRING, P CONTROL | |
| 218 | 3-933-806-01 | LEVER (E), PAUSE | |
| 219 | 3-933-807-01 | SPRING, PAUSE LEVER | |
| 220 | 3-933-808-01 | STOPPER, PAUSE | |
| 221 | 3-933-797-01 | ACTUATOR, SWITCH | |
| * 222 | 3-933-813-01 | LEVER, E KICK | |
| 223 | 3-933-798-01 | ACTUATOR, PUSH BUTTON | |
| 224 | 3-394-737-01 | LEVER, REC BUTTON | |
| 225 | 3-933-800-01 | LEVER, PLAY BUTTON | |
| 226 | 3-933-801-01 | LEVER, REW BUTTON | |
| 227 | 3-933-802-01 | LEVER, FF BUTTON | |
| * 228 | 3-933-803-01 | LEVER, STOP BUTTON | |
| 229 | 3-933-804-01 | LEVER, PAUSE BUTTON | |
| 230 | 3-933-847-01 | LEVER, RECORD SAFETY | |
| 231 | 3-913-430-01 | REEL ASSY, SUPPLY | |
| 232 | 3-933-838-01 | REEL ASSY, TAKE UP | |
| 233 | 3-933-839-01 | SENSER | |
| 234 | 3-933-836-01 | SPRING, BACK TENSION | |
| 235 | 3-933-835-01 | GEAR, FF | |
| * 236 | 3-933-810-01 | CHASSIS ASSY | |
| 237 | 3-933-845-01 | LEVER, EJECT SLIDE | |
| 238 | 3-933-850-01 | SCREW (M2X5), P TAPPING BIND | |
| 239 | 3-933-851-01 | SCREW (M2 × 4.5), TAPPING | |
| 240 | 3-933-824-01 | SCREW (2 × 3), PS TAPPING | |
| 241 | 3-933-827-01 | COLLER, P ARM | |
| 242 | 3-348-377-01 | ARM, P | |
| 244 | 3-933-855-01 | SCREW (M2 × 8), S TAPPING | |
| HE601 | 1-500-334-11 | HEAD, E (TC-238) | |
| HRP601 | 1-500-333-11 | HEAD, R-P (MS15R-AA2N1) | |

## 6-5. OPTICAL PICK-UP SECTION (KSM-213CAM/C2NP)




| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| 301 | 2-626-908-01 | SHAFT, SLED | |
| 302 | 2-627-003-02 | GEAR (B) (RP) | |
| 304 | 2-626-907-01 | GEAR (A) | |
| ⚠305 | 8-848-483-05 | DEVICE, OPTICAL KSS-213C/Q-RP | |
| 306 | X-2625-770-1 | CHASSIS ASSY (MB) (RP), MOTOR (INCLUDING M702) (SPINDLE) | |
| M701 | X-2625-769-1 | GEAR ASSY (MB) (RP), MOTOR (SLED) | |

| | |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.<br>Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.<br>Ne les remplacer que par une pièce portant le numéro spécifié. |

# SECTION 7
# ELECTRICAL PARTS LIST

BATTERY | CD MOTOR | DC | HP | MAIN

NOTE:

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

- Abbreviation
  CND : Canadian
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
  uF: µF
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- COILS
  uH: µH
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA...: µA... , uPA... , µPA... ,
  uPB... , µPB... , uPC... , µPC... ,
  uPD..., µPD...

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| * | 1-667-644-11 | BATTERY BOARD<br>********** | |
| | 3-017-954-01 | SPRING (L) (–), BATTERY | |
| | 3-939-057-01 | SPRING (–), BACK UP | |
| ********** | | | |
| | 1-639-678-12 | CD MOTOR BOARD<br>********** | |
| | | < CONNECTOR > | |
| CNP707 | 1-564-722-11 | PIN, CONNECTOR (SMALL TYPE) 6P | |
| | | < SWITCH > | |
| | 1-572-085-11 | SWITCH, LEAF (CD DET) | |
| ********** | | | |
| * | 1-667-642-11 | DC BOARD<br>********** | |
| | | < JACK > | |
| J302 | 1-778-380-11 | JACK,DC (POLARITY UNIFIED TYPE) (DC IN 9V) | |
| ********** | | | |
| * | 1-667-647-11 | H/P BOARD<br>********** | |
| | | < CONNECTOR > | |
| CN303 | 1-564-707-11 | PIN, CONNECTOR (SMALL TYPE) 5P | |
| | | < JACK > | |
| J301 | 1-566-891-11 | JACK (🎧) | |
| | | < RESISTOR > | |
| R191 | 1-249-406-11 | CARBON 120 5% 1/4W F | |
| R291 | 1-249-406-11 | CARBON 120 5% 1/4W F | |
| ********** | | | |

| Ref. No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| * | A-3293-761-A | MAIN BOARD (US, CND)<br>********** | | | |
| * | A-3293-763-A | MAIN BOARD (AEP)<br>********** | | | |
| | 1-782-832-11 | WIRE, PARALLEL (14 CORE) | | | |
| | 7-685-646-79 | SCREW, TAPPING +BV 3 × 8 | | | |
| | | < CAPACITOR > | | | |
| C101 | 1-162-302-11 | CERAMIC | 0.0022uF | 30% | 16V |
| C103 | 1-126-967-11 | ELECT | 47uF | 20% | 10V |
| C104 | 1-161-020-11 | CERAMIC | 0.039uF | 10% | 25V |
| C105 | 1-162-302-11 | CERAMIC | 0.0022uF | 30% | 16V |
| C111 | 1-126-963-11 | ELECT | 4.7uF | 20% | 50V |
| C113 | 1-126-963-11 | ELECT | 4.7uF | 20% | 50V |
| C120 | 1-126-967-11 | ELECT | 47uF | 20% | 10V |
| C122 | 1-126-963-11 | ELECT | 4.7uF | 20% | 50V |
| C130 | 1-126-933-11 | ELECT | 100uF | 20% | 10V |
| C140 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C150 | 1-126-963-11 | ELECT | 4.7uF | 20% | 50V |
| C160 | 1-162-290-31 | CERAMIC | 470PF | 10% | 50V |
| C170 | 1-162-282-31 | CERAMIC | 100PF | 10% | 50V |
| C180 | 1-162-286-21 | CERAMIC | 220PF | 10% | 50V |
| C190 | 1-162-282-31 | CERAMIC | 100PF | 10% | 50V |
| C191 | 1-126-926-11 | ELECT | 1000uF | 20% | 10V |
| C194 | 1-126-967-11 | ELECT | 47uF | 20% | 10V |
| C201 | 1-162-302-11 | CERAMIC | 0.0022uF | 30% | 16V |
| C203 | 1-126-967-11 | ELECT | 47uF | 20% | 10V |
| C204 | 1-161-020-11 | CERAMIC | 0.039uF | 10% | 25V |
| C205 | 1-162-302-11 | CERAMIC | 0.0022uF | 30% | 16V |
| C211 | 1-126-963-11 | ELECT | 4.7uF | 20% | 50V |
| C213 | 1-126-963-11 | ELECT | 4.7uF | 20% | 50V |
| C220 | 1-126-967-11 | ELECT | 47uF | 20% | 10V |
| C222 | 1-126-963-11 | ELECT | 4.7uF | 20% | 50V |
| C230 | 1-126-933-11 | ELECT | 100uF | 20% | 10V |
| C240 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C250 | 1-126-963-11 | ELECT | 4.7uF | 20% | 50V |
| C260 | 1-162-290-31 | CERAMIC | 470PF | 10% | 50V |
| C270 | 1-162-282-31 | CERAMIC | 100PF | 10% | 50V |
| C280 | 1-162-286-21 | CERAMIC | 220PF | 10% | 50V |
| C290 | 1-162-282-31 | CERAMIC | 100PF | 10% | 50V |
| C291 | 1-126-926-11 | ELECT | 1000uF | 20% | 10V |
| C303 | 1-126-923-91 | ELECT | 220uF | 20% | 10V |
| C304 | 1-126-967-11 | ELECT | 47uF | 20% | 10V |

## MAIN

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C305 | 1-126-933-11 | ELECT | 100uF | 20% | 10V |
| C306 | 1-126-933-11 | ELECT | 100uF | 20% | 10V |
| C308 | 1-126-964-11 | ELECT | 10uF | 20% | 50V |
| C310 | 1-126-964-11 | ELECT | 10uF | 20% | 50V |
| C311 | 1-126-964-11 | ELECT | 10uF | 20% | 50V |
| C312 | 1-161-060-00 | CERAMIC | 0.056uF | 10% | 25V |
| C313 | 1-161-060-00 | CERAMIC | 0.056uF | 10% | 25V |
| C314 | 1-162-837-11 | CERAMIC | 0.0068uF | 10% | 16V |
| C315 | 1-126-926-11 | ELECT | 1000uF | 20% | 10V |
| C316 | 1-161-494-00 | CERAMIC | 0.022uF | | 25V |
| C322 | 1-161-060-00 | CERAMIC | 0.056uF | 10% | 25V |
| C323 | 1-161-060-00 | CERAMIC | 0.056uF | 10% | 25V |
| C324 | 1-162-837-11 | CERAMIC | 0.0068uF | 10% | 16V |
| C325 | 1-126-963-11 | ELECT | 4.7uF | 20% | 50V |
| C326 | 1-126-964-11 | ELECT | 10uF | 20% | 50V |
| C327 | 1-162-851-11 | CERAMIC | 0.1uF | 10% | 16V |
| C329 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C330 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C331 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C332 | 1-126-960-11 | ELECT | 1uF | 20% | 50V |
| C333 | 1-126-933-11 | ELECT | 100uF | 20% | 10V |
| C335 | 1-126-933-11 | ELECT | 100uF | 20% | 10V |
| C336 | 1-126-923-11 | ELECT | 220uF | 20% | 10V |
| C340 | 1-162-851-11 | CERAMIC | 0.1uF | 10% | 16V |
| C342 | 1-130-469-00 | MYLAR | 680PF | 5% | 50V |
| C344 | 1-126-923-11 | ELECT | 220uF | 20% | 10V |
| C345 | 1-162-851-11 | CERAMIC | 0.1uF | 10% | 16V |
| C346 | 1-104-657-91 | CERAMIC | 47uF | 20% | 10V |
| C352 | 1-162-851-11 | CERAMIC | 0.1uF | 10% | 16V |
| C353 | 1-126-923-11 | ELECT | 220uF | 20% | 10V |
| C354 | 1-126-926-11 | ELECT | 1000uF | 20% | 10V |
| C356 | 1-162-851-11 | CERAMIC | 0.1uF | 10% | 16V |
| C358 | 1-126-924-11 | ELECT | 330uF | 20% | 10V |
| C360 | 1-126-963-11 | ELECT | 4.7uF | 20% | 50V |
| C391 | 1-126-934-11 | ELECT | 220uF | 20% | 16V |
| C392 | 1-126-934-11 | ELECT | 220uF | 20% | 16V |
| C399 | 1-126-768-11 | ELECT | 2200uF | 20% | 16V |
| C700 | 1-162-236-21 | CERAMIC | 15PF | 5% | 50V |
| C701 | 1-162-302-11 | CERAMIC | 0.0022uF | 30% | 16V |
| C702 | 1-162-851-11 | CERAMIC | 0.1uF | 10% | 16V |
| C703 | 1-162-851-11 | CERAMIC | 0.1uF | 10% | 16V |
| C704 | 1-162-851-11 | CERAMIC | 0.1uF | 10% | 16V |
| C705 | 1-131-382-11 | ELECT | 6.8uF | | 6.3V |
| C706 | 1-130-489-11 | MYLAR | 0.033uF | 5% | 50V |
| C707 | 1-130-485-00 | MYLAR | 0.015uF | 5% | 50V |
| C708 | 1-162-199-31 | CERAMIC | 10PF | 5% | 50V |
| C709 | 1-126-963-11 | ELECT | 4.7uF | 20% | 50V |
| C710 | 1-130-493-00 | MYLAR | 0.068uF | 5% | 50V |
| C711 | 1-162-215-31 | CERAMIC | 47PF | 5% | 50V |
| C713 | 1-130-489-00 | MYLAR | 0.033uF | 5% | 50V |
| C714 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C715 | 1-130-489-00 | MYLAR | 0.033uF | 5% | 50V |
| C716 | 1-130-493-11 | MYLAR | 0.068uF | 5% | 50V |
| C717 | 1-126-967-11 | ELECT | 47uF | 20% | 10V |
| C718 | 1-126-964-11 | ELECT | 10uF | 20% | 50V |
| C719 | 1-126-926-11 | ELECT | 1000uF | 20% | 10V |
| C720 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C721 | 1-130-491-00 | MYLAR | 0.047uF | 5% | 50V |
| C722 | 1-101-005-00 | CERAMIC | 22000PF | | 50V |
| C723 | 1-162-851-11 | CERAMIC | 0.1uF | 10% | 16V |
| C725 | 1-162-236-21 | CERAMIC | 15PF | 5% | 50V |
| C726 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C727 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C728 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C729 | 1-126-933-11 | ELECT | 100uF | 20% | 10V |
| C730 | 1-126-924-11 | ELECT | 330uF | 20% | 10V |
| C731 | 1-136-177-00 | FILM | 1uF | 5% | 50V |
| C732 | 1-130-483-00 | MYLAR | 0.01uF | 5% | 50V |
| C734 | 1-162-600-11 | CERAMIC | 0.0047uF | 30% | 16V |
| C737 | 1-162-286-21 | CERAMIC | 220PF | 10% | 50V |
| C738 | 1-162-286-21 | CERAMIC | 220PF | 10% | 50V |
| C741 | 1-126-923-11 | ELECT | 220uF | 20% | 10V |
| C742 | 1-126-959-11 | ELECT | 0.47uF | 20% | 50V |
| C743 | 1-162-290-31 | CERAMIC | 470PF | 10% | 50V |
| C744 | 1-162-286-21 | CERAMIC | 220PF | 10% | 50V |
| C745 | 1-130-499-00 | MYLAR | 0.22uF | 5% | 50V |
| C746 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C747 | 1-130-483-00 | MYLAR | 0.01uF | 5% | 50V |
| C752 | 1-162-199-31 | CERAMIC | 10PF | 5% | 50V |
| C753 | 1-162-199-31 | CERAMIC | 10PF | 5% | 50V |
| C754 | 1-126-923-11 | ELECT | 220uF | 20% | 10V |
| C755 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C756 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C763 | 1-162-302-11 | CERAMIC | 0.0022uF | 30% | 16V |
| C764 | 1-126-963-11 | ELECT | 4.7uF | 20% | 50V |
| C773 | 1-162-302-11 | CERAMIC | 0.0022uF | 30% | 16V |
| C774 | 1-126-963-11 | ELECT | 4.7uF | 20% | 50V |
| C775 | 1-162-286-21 | CERAMIC | 220PF (US, CND) | | |
| C776 | 1-162-294-21 | CERAMIC | 1000PF (US, CND) | | |
| C777 | 1-162-851-11 | CERAMIC | 0.1uF | 10% | 16V |
| C778 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C779 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C780 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C781 | 1-126-923-11 | ELECT | 220uF | 20% | 10V |
| C782 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C783 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C784 | 1-126-967-11 | ELECT | 47uF | 20% | 10V |
| C786 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C787 | 1-126-923-11 | ELECT | 220uF | 20% | 10V |
| C788 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C790 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C796 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C797 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C798 | 1-126-933-11 | ELECT | 100uF | 20% | 10V |
| C802 | 1-126-960-11 | ELECT | 1.0uF | 20% | 50V |
| C803 | 1-126-967-11 | ELECT | 47uF | 20% | 10V |
| C804 | 1-162-851-91 | CERAMIC | 0.1uF | 10% | 16V |
| C807 | 1-162-851-11 | CERAMIC | 0.1uF | 10% | 16V |
| C808 | 1-126-967-11 | ELECT | 47uF | 20% | 10V |
| C810 | 1-102-958-00 | CERAMIC | 20PF | 5% | 50V |
| C811 | 1-102-516-11 | CERAMIC | 27PF | 5% | 50V |
| C815 | 1-102-517-91 | CERAMIC | 30PF | 5% | 50V |
| C816 | 1-102-517-91 | CERAMIC | 30PF | 5% | 50V |
| C817 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C818 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C819 | 1-102-518-91 | CERAMIC | 33PF | 5% | 50V |
| C820 | 1-102-518-91 | CERAMIC | 33PF | 5% | 50V |
| C821 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C822 | 1-162-300-21 | CERAMIC | 10000pF | 30% | 16V |
| C823 | 1-162-300-21 | CERAMIC | 10000pF | 30% | 16V |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C824 | 1-162-851-91 | CERAMIC | 0.1uF | 10% | 16V |
| C825 | 1-162-294-21 | CERAMIC | 0.001uF | 10% | 50V |
| C826 | 1-162-294-21 | CERAMIC | 0.001uF | 10% | 50V |
| C827 | 1-162-294-21 | CERAMIC | 0.001uF | 10% | 50V |
| C828 | 1-162-282-21 | CERAMIC | 100pF | 10% | 50V |
| C829 | 1-162-282-21 | CERAMIC | 100pF | 10% | 50V |
| C830 | 1-162-282-21 | CERAMIC | 100pF | 10% | 50V |
| C834 | 1-162-282-21 | CERAMIC | 100pF | 10% | 50V |
| C835 | 1-162-294-21 | CERAMIC | 0.001uF | 10% | 50V |
| C836 | 1-162-300-21 | CERAMIC | 10000pF | 30% | 16V |
| C837 | 1-162-294-21 | CERAMIC | 0.001uF | 10% | 50V |
| C840 | 1-128-551-11 | ELECT | 22uF | 20% | 25V |
| C841 | 1-104-658-91 | ELECT | 100uF | 20% | 10V |
| C842 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C843 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C844 | 1-162-282-31 | CERAMIC | 100PF | 10% | 50V |
| C845 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C846 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C847 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C848 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C849 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C850 | 1-125-705-11 | DOUBLE LAYER | 0.22F | 0 | 5.5V |
| C851 | 1-162-294-21 | ELECT | 0.001uF | 10% | 50V |
| C852 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C853 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C854 | 1-126-967-11 | ELECT | 47uF | 20% | 10V |
| C856 | 1-162-282-31 | CERAMIC | 100PF | 10% | 50V |
| C857 | 1-162-282-31 | CERAMIC | 100PF | 10% | 50V |
| | | < CONNECTOR > | | | |
| * CN301 | 1-564-706-11 | PIN, CONNECTOR (SMALL TYPE) 4P | | | |
| * CN302 | 1-564-720-11 | PIN, CONNECTOR (SMALL TYPE) 4P | | | |
| CN303 | 1-564-721-11 | PIN, CONNECTOR (SMALL TYPE) 5P | | | |
| * CN304 | 1-564-706-31 | PIN, CONNECTOR (SMALL TYPE) 4P | | | |
| * CN305 | 1-564-708-11 | PIN, CONNECTOR (SMALL TYPE) 6P | | | |
| * CN307 | 1-695-336-11 | PIN, CONNECTOR (PC BOARD) 13P | | | |
| CN309 | 1-564-507-41 | PLUG, CONNECTOR 4P (US, CND) | | | |
| * CN309 | 1-564-507-11 | PLUG, CONNECTOR 4P (AEP) | | | |
| CN311 | 1-691-062-31 | HOUSING, CONNECTOR 30P | | | |
| * CN315 | 1-564-706-11 | PIN, CONNECTOR (SMALL TYPE) 4P | | | |
| * CN318 | 1-564-518-11 | PLUG, CONNECTOR 3P | | | |
| CN701 | 1-770-168-11 | CONNECTOR, FFC/FPC 16P | | | |
| * CN702 | 1-564-708-11 | PIN, CONNECTOR (SMALL TYPE) 6P | | | |
| | | < DIODE > | | | |
| D301 | 8-719-109-97 | DIODE RD6.8ES-B2 | | | |
| D302 | 8-719-109-89 | DIODE RD5.6ESB2 | | | |
| D355 | 8-719-991-33 | DIODE 1SS133T-77 | | | |
| D356 | 8-719-991-33 | DIODE 1SS133T-77 | | | |
| D388 | 8-719-200-02 | DIODE 10E2 | | | |
| D390 | 8-719-991-33 | DIODE 1SS133T-77 | | | |
| D391 | 8-719-991-33 | DIODE 1SS133T-77 | | | |
| D392 | 8-719-991-33 | DIODE 1SS133T-77 | | | |
| | | < FUSE > | | | |
| ⚠F301 | 1-533-420-11 | FUSE, GLASS CYLINDRICAL (DIA.5) | | | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| | | < FUSE HOLDER > | |
| FH301 | 1-533-233-21 | HOLDER, FUSE | |
| FH302 | 1-533-233-21 | HOLDER, FUSE | |
| | | < IC > | |
| IC301 | 8-759-264-71 | IC TA2068N | |
| IC302 | 8-759-432-41 | IC BH3854AS | |
| IC305 | 8-759-820-22 | IC LA4597 | |
| IC701 | 8-752-074-34 | IC CXA1782BQ | |
| IC702 | 8-752-372-94 | IC CXD2507AQ | |
| IC703 | 8-759-478-60 | IC BA6898S | |
| IC704 | 8-759-426-44 | IC 27C512-C35A65-V3.03 | |
| IC705 | 8-759-445-16 | IC SM5859AF | |
| IC706 | 8-759-427-15 | IC MB814400C-70PFTN | |
| IC801 | 8-752-894-00 | IC CXP83120A-025Q | |
| IC802 | 8-759-095-60 | IC S-81250PG | |
| IC802 | 8-759-479-70 | IC S-81250SGY-Z | |
| IC804 | 8-759-165-86 | IC PST600I-T | |
| | | < COIL > | |
| L301 | 1-410-509-11 | INDUCTOR 10uH | |
| L701 | 7-611-031-61 | WIRE, TINNING COPPER | |
| L702 | 1-412-852-11 | INDUCTOR 47uH | |
| L703 | 1-414-142-31 | INDUCTOR 10uH | |
| L704 | 7-611-031-61 | WIRE, TINNING COPPER | |
| L705 | 1-414-142-31 | INDUCTOR 1.0uH | |
| L801 | 1-414-142-31 | INDUCTOR 1.0uH | |
| L802 | 1-414-142-31 | INDUCTOR 1.0uH | |
| L803 | 1-410-509-11 | INDUCTOR 10uH | |
| L806 | 1-414-142-31 | INDUCTOR 1.0uH | |
| L807 | 1-414-142-31 | INDUCTOR 1.0uH | |
| L808 | 1-414-142-31 | INDUCTOR 1.0uH | |
| L810 | 1-414-142-31 | INDUCTOR 1.0uH | |
| L811 | 1-414-142-31 | INDUCTOR 1.0uH | |
| | | < TRANSISTOR > | |
| Q73 | 8-729-900-74 | TRANSISTOR DTC143TS (US, CND) | |
| Q301 | 8-729-801-84 | TRANSISTOR 2SB1013-4 | |
| Q302 | 8-729-029-72 | TRANSISTOR DTC114YS-TP | |
| Q303 | 8-729-209-15 | TRANSISTOR 2SD2012 | |
| Q304 | 8-729-209-15 | TRANSISTOR 2SD2012 | |
| Q305 | 8-729-902-80 | TRANSISTOR DTA114YS (US, CND) | |
| Q306 | 8-729-029-72 | TRANSISTOR DTC114YS-TP | |
| Q309 | 8-729-281-53 | TRANSISTOR 2SC1815-GR | |
| Q310 | 8-729-119-78 | TRANSISTOR 2SC403SP-51 | |
| Q311 | 8-729-119-78 | TRANSISTOR 2SC403SP-51 | |
| Q701 | 8-729-037-02 | TRANSISTOR KTA1266Y-AT | |
| Q703 | 8-729-029-94 | TRANSISTOR DTC143TSA | |
| Q704 | 8-729-922-67 | TRANSISTOR 2SC2410S-TPN | |
| Q801 | 8-729-902-80 | TRANSISTOR DTA114YS | |
| Q802 | 8-729-029-72 | TRANSISTOR DTC114YS-TP | |
| Q803 | 8-729-922-66 | TRANSISTOR 2SC2410SN | |
| Q804 | 8-729-922-66 | TRANSISTOR 2SC2410SN | |
| Q805 | 8-729-902-80 | TRANSISTOR DTA114YS | |
| Q806 | 8-729-801-84 | TRANSISTOR 2SB1013-4 | |
| Q807 | 8-729-902-80 | TRANSISTOR DTA114YS | |

| | |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.<br>Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.<br>Ne les remplacer que par une pièce portant le numéro spécifié. |

# MAIN

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| Q808 | 8-729-904-34 | TRANSISTOR DTA114TS | | | |
| Q809 | 8-729-029-72 | TRANSISTOR DTC114YS-TP | | | |
| | | < RESISTOR > | | | |
| R101 | 1-249-431-11 | CARBON | 15K | 5% | 1/4W |
| R102 | 1-249-404-00 | CARBON | 82 | 5% | 1/4W F |
| R103 | 1-249-440-11 | CARBON | 82K | 5% | 1/4W |
| R104 | 1-247-843-11 | CARBON | 3.3K | 5% | 1/4W |
| R105 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R106 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R110 | 1-249-387-11 | CARBON | 3.3 | 5% | 1/4W F |
| R111 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R112 | 1-247-839-91 | CARBON | 2.2K | 5% | 1/4W F |
| R115 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R119 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R120 | 1-247-837-91 | CARBON | 1.8K | 5% | 1/4W |
| R193 | 1-247-839-91 | CARBON | 2.2K | 5% | 1/4W F |
| R194 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W F |
| R199 | 1-249-427-11 | CARBON | 6.8K | 5% | 1/4W F |
| R201 | 1-249-431-11 | CARBON | 15K | 5% | 1/4W |
| R202 | 1-249-404-00 | CARBON | 82 | 5% | 1/4W F |
| R203 | 1-249-440-11 | CARBON | 82K | 5% | 1/4W |
| R204 | 1-247-843-11 | CARBON | 3.3K | 5% | 1/4W |
| R205 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R206 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R210 | 1-249-387-11 | CARBON | 3.3 | 5% | 1/4W F |
| R211 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R212 | 1-247-839-91 | CARBON | 2.2K | 5% | 1/4W F |
| R215 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R220 | 1-247-837-91 | CARBON | 1.8K | 5% | 1/4W |
| R293 | 1-247-839-91 | CARBON | 2.2K | 5% | 1/4W F |
| R294 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W F |
| R299 | 1-249-427-11 | CARBON | 6.8K | 5% | 1/4W F |
| R301 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R302 | 1-249-439-11 | CARBON | 68K | 5% | 1/4W |
| R304 | 1-247-903-00 | CARBON | 1M | 5% | 1/4W |
| R305 | 1-249-407-11 | CARBON | 150 | 5% | 1/4W F |
| R306 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R307 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R310 | 1-249-407-11 | CARBON | 150 | 5% | 1/4W F |
| R313 | 1-249-399-11 | CARBON | 33 | 5% | 1/4W F |
| R314 | 1-249-399-11 | CARBON | 33 | 5% | 1/4W F |
| R321 | 1-247-855-91 | CARBON | 10K | 5% | 1/4W F |
| R323 | 1-247-903-00 | CARBON | 1M | 5% | 1/4W |
| R324 | 1-247-903-00 | CARBON | 1M | 5% | 1/4W |
| R325 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R326 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R327 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R328 | 1-247-903-00 | CARBON | 1M | 5% | 1/4W |
| R329 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R330 | 1-247-895-91 | CARBON | 470K | 5% | 1/4W |
| R341 | 1-249-393-11 | CARBON | 10 | 5% | 1/4W F |
| R342 | 1-249-435-11 | CARBON | 33K | 5% | 1/4W |
| R355 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W |
| R376 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R377 | 1-249-435-11 | CARBON | 33K | 5% | 1/4W |
| R391 | 1-247-807-91 | CARBON | 100 | 5% | 1/4W |
| R392 | 1-247-843-11 | CARBON | 3.3K | 5% | 1/4W |
| R393 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R394 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R398 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W F |
| R700 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R701 | 1-247-881-00 | CARBON | 120K | 5% | 1/4W |
| R702 | 1-247-896-11 | CARBON | 510K | 5% | 1/4W |
| R703 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R704 | 1-247-883-00 | CARBON | 150K | 5% | 1/4W |
| R705 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R706 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R707 | 1-247-863-91 | CARBON | 22K | 5% | 1/4W |
| R708 | 1-247-883-00 | CARBON | 150K | 5% | 1/4W |
| R709 | 1-249-431-11 | CARBON | 15K | 5% | 1/4W |
| R710 | 1-249-393-11 | CARBON | 10 | 5% | 1/4W F |
| R711 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R712 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R713 | 1-249-431-11 | CARBON | 15K | 5% | 1/4W |
| R714 | 1-247-883-00 | CARBON | 150K | 5% | 1/4W |
| R715 | 1-249-435-11 | CARBON | 33K | 5% | 1/4W |
| R716 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R717 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R718 | 1-247-899-11 | CARBON | 680K | 5% | 1/4W |
| R719 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W F |
| R720 | 1-247-891-00 | CARBON | 330K | 5% | 1/4W |
| R721 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W F |
| R722 | 1-249-438-11 | CARBON | 56K | 5% | 1/4W |
| R723 | 1-249-440-11 | CARBON | 82K | 5% | 1/4W |
| R725 | 1-247-887-00 | CARBON | 220K | 5% | 1/4W |
| R726 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R727 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R730 | 1-249-435-11 | CARBON | 33K | 5% | 1/4W |
| R732 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W F |
| R740 | 1-247-843-11 | CARBON | 3.3K | 5% | 1/4W |
| R741 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R742 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R743 | 1-247-903-00 | CARBON | 1M | 5% | 1/4W |
| R744 | 1-247-887-00 | CARBON | 220K | 5% | 1/4W |
| R745 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R746 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R747 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R748 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R749 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R750 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W F |
| R751 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R753 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R755 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R756 | 1-249-440-11 | CARBON | 82K | 5% | 1/4W |
| R757 | 1-249-438-11 | CARBON | 56K | 5% | 1/4W |
| R758 | 1-249-438-11 | CARBON | 56K | 5% | 1/4W |
| R759 | 1-249-438-11 | CARBON | 56K | 5% | 1/4W |
| R760 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R761 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R762 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R763 | 1-247-895-91 | CARBON (SMALL) | 470K | 5% | 1/4W |
| R766 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R776 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R777 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R792 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R800 | 1-247-891-00 | CARBON | 330K | 5% | 1/4W |
| R801 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R816 | 1-249-407-11 | CARBON | 150 | 5% | 1/4W F |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R821 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W F |
| R824 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W |
| R825 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R826 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R826 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R827 | 1-249-435-11 | CARBON | 33K | 5% | 1/4W |
| R828 | 1-249-435-11 | CARBON | 33K | 5% | 1/4W |
| R829 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R830 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R831 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R832 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W F (US, CND) |
| R833 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W F (AEP) |
| R834 | 1-247-891-00 | CARBON | 330K | 5% | 1/4W |
| R835 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R836 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R837 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R838 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R839 | 1-247-891-00 | CARBON | 330K | 5% | 1/4W |
| R840 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R841 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R842 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R843 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R844 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R845 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R846 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R847 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R848 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R849 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R850 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R851 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R852 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R853 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R854 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R855 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R856 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R857 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R858 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R859 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R860 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R861 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R862 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R863 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W F |
| R864 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R865 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R866 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R867 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R868 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R869 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R870 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R871 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R872 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R873 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R874 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R875 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R876 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R877 | 1-247-891-00 | CARBON | 330K | 5% | 1/4W |
| R878 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R879 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R880 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R881 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R882 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R883 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R884 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R885 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R886 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R887 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R888 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R889 | 1-247-831-91 | CARBON | 1K | 5% | 1/4W |
| R890 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R891 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W F |
| R892 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W F |
| R893 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W F |
| R894 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R895 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R896 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R897 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R898 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R899 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W F |

< VARIABLE RESISTOR >

| | | |
|---|---|---|
| RV701 | 1-241-786-11 | RES, ADJ, CARBON 22K |
| RV702 | 1-241-786-11 | RES, ADJ, CARBON 22K |
| RV703 | 1-241-783-11 | RES, ADJ, CERMET 2.2K |
| RV704 | 1-241-787-11 | RES, ADJ, CARBON 47K |

< TRANSFORMER >

| | | |
|---|---|---|
| T301 | 1-416-041-11 | TRANSFORMER, BIAS OSCILLATION |

< VIBRATOR >

| | | |
|---|---|---|
| X701 | 1-579-345-11 | VIBRATOR, CERAMIC (16.9344MHz) |
| X801 | 1-767-184-11 | VIBRATOR, CERAMIC (4.20MHz) |
| X802 | 1-567-098-41 | VIBRATOR, CRYSTAL (32.768kHz) |

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| | | |
|---|---|---|
| * | 1-667-640-11 | POWER SW BOARD |

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< CONNECTOR >

| | | |
|---|---|---|
| * CN317 | 1-564-718-11 | PIN, CONNECTOR (SMALL TYPE) 2P |

< SWITCH >

| | | |
|---|---|---|
| SW801 | 1-571-043-11 | SWITCH, PUSH (1 KEY) (POWER) |

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**REC** **RESET** **SW1** **SW2** **TUNER**

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| * | 1-667-641-11 | REC BOARD<br>********** | |
| | | < SWITCH > | |
| S301 | 1-762-565-11 | SWITCH, SLIDE (REC) | |

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| | | | |
|---|---|---|---|
| * | 1-668-684-11 | RESET BOARD (US, CND)<br>********** | |
| | | < CONNECTOR > | |
| CN320 | 1-564-718-11 | PIN, CONNECTOR (SMALL TYPE) 2P (US, CND) | |
| | | < SWITCH > | |
| SW822 | 1-554-088-00 | SWITCH, KEY BOARD (RESET) (US, CND) | |

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| | | | |
|---|---|---|---|
| * | 1-667-646-11 | SW1 BOARD<br>********** | |
| | 1-782-831-11 | WIRE, PARALLEL (30 CORE) | |
| | 3-017-928-01 | HOLDER, LCD | |
| | | < CONNECTOR > | |
| CN310 | 1-563-633-11 | HOUSING, CONNECTOR 30P | |
| | | < LIQUID CRYSTAL DISPLAY > | |
| LCD801 | 1-801-875-11 | DISPLAY PANEL, LIQUID CRYSTAL | |
| | | < RESISTOR > | |

| | | | | | | |
|---|---|---|---|---|---|---|
| R802 | 1-249-415-11 | CARBON | 680 | 5% | 1/4W | F |
| R803 | 1-249-416-11 | CARBON | 820 | 5% | 1/4W | F |
| R804 | 1-249-418-11 | CARBON | 1.2K | 5% | 1/4W | F |
| R805 | 1-249-420-11 | CARBON | 1.8K | 5% | 1/4W | F |
| R806 | 1-247-843-11 | CARBON | 3.3K | 5% | 1/4W | |
| R807 | 1-249-427-11 | CARBON | 6.8K | 5% | 1/4W | F |
| R808 | 1-249-432-11 | CARBON | 18K | 5% | 1/4W | |
| R809 | 1-249-415-11 | CARBON | 680 | 5% | 1/4W | F |
| R810 | 1-249-416-11 | CARBON | 820 | 5% | 1/4W | F |
| R811 | 1-249-418-11 | CARBON | 1.2K | 5% | 1/4W | F |
| R812 | 1-249-420-11 | CARBON | 1.8K | 5% | 1/4W | F |
| R813 | 1-247-843-11 | CARBON | 3.3K | 5% | 1/4W | |
| R814 | 1-249-427-11 | CARBON | 6.8K | 5% | 1/4W | F |
| R815 | 1-249-432-11 | CARBON | 18K | 5% | 1/4W | |

| | | |
|---|---|---|
| | | < SWITCH > |
| SW802 | 1-692-014-11 | SWITCH, KEY BOARD (CLOCK) |
| SW803 | 1-692-014-11 | SWITCH, KEY BOARD (TIMER) |
| SW804 | 1-692-014-11 | SWITCH, KEY BOARD (STAND BY) |
| SW805 | 1-692-014-11 | SWITCH, KEY BOARD (RADIO) |
| SW806 | 1-692-014-11 | SWITCH, KEY BOARD (SLEEP) |
| SW807 | 1-692-014-11 | SWITCH, KEY BOARD (FUNCTION) |
| SW809 | 1-692-014-11 | SWITCH, KEY BOARD (CD+) |
| SW810 | 1-692-014-11 | SWITCH, KEY BOARD (CD–) |
| SW811 | 1-692-014-11 | SWITCH, KEY BOARD (PRESET) |
| SW812 | 1-692-014-11 | SWITCH, KEY BOARD (PRESET) |
| SW813 | 1-692-014-11 | SWITCH, KEY BOARD (DISPALY/ENTER, MEMOLY) |
| SW814 | 1-692-014-11 | SWITCH, KEY BOARD (TUNING/TIME SET–) |
| SW815 | 1-692-014-11 | SWITCH, KEY BOARD (TUNING/TIME SET+) |
| SW816 | 1-692-014-11 | SWITCH, KEY BOARD (MODE MONO/SET) |

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|---|---|---|---|
| | 1-667-645-11 | SW2 BOARD<br>********** | |
| | | < DIODE > | |
| D801 | 8-719-938-69 | DIODE GL3PR8 | |
| D802 | 8-719-938-69 | DIODE GL3PR8 | |
| | | < RESISTOR > | |

| | | | | | | |
|---|---|---|---|---|---|---|
| R817 | 1-249-415-11 | CARBON | 680 | 5% | 1/4W | F |
| R818 | 1-249-416-11 | CARBON | 820 | 5% | 1/4W | F |
| R819 | 1-249-418-11 | CARBON | 1.2K | 5% | 1/4W | F |
| R820 | 1-249-420-11 | CARBON | 1.8K | 5% | 1/4W | F |
| R822 | 1-249-407-11 | CARBON | 150 | 5% | 1/4W | F |
| R823 | 1-249-407-11 | CARBON | 150 | 5% | 1/4W | F |

| | | |
|---|---|---|
| | | < SWITCH > |
| SW817 | 1-692-014-11 | SWITCH, KEY BOARD (VOLUME–) |
| SW818 | 1-692-014-11 | SWITCH, KEY BOARD (VOLUME+) |
| SW819 | 1-692-014-11 | SWITCH, KEY BOARD (MEGABASS) |
| SW820 | 1-692-014-11 | SWITCH, KEY BOARD (SOUND) |
| SW821 | 1-692-014-11 | SWITCH, KEY BOARD (ESP) |

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| | | | |
|---|---|---|---|
| * | A-3306-941-A | TUNER BOARD (US, CND)<br>********** | |
| * | A-3306-948-A | TUNER BOARD (AEP)<br>********** | |
| | | < CAPACITOR > | |

| | | | | | |
|---|---|---|---|---|---|
| C2 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C3 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C4 | 1-102-960-00 | CERAMIC | 24PF | 5% | 50V |
| C5 | 1-162-203-31 | CERAMIC | 15PF | 5% | 50V |
| C7 | 1-161-055-00 | CERAMIC | 0.022uF | 10% | 50V |
| C8 | 1-162-201-31 | CERAMIC | 12PF | 5% | 50V |
| C9 | 1-102-821-00 | CERAMIC | 360PF | 5% | 50V |
| C10 | 1-162-851-11 | CERAMIC | 0.1uF | | 16V |
| C11 | 1-102-112-00 | CERAMIC | 330PF | 10% | 50V |
| C12 | 1-126-964-11 | ELECT | 10uF | 20% | 50V |
| C13 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C14 | 1-161-061-11 | CERAMIC | 0.068uF | 10% | 50V |
| C15 | 1-161-024-00 | CERAMIC | 0.082uF | 10% | 25V |
| C16 | 1-161-024-00 | CERAMIC | 0.082uF | 10% | 25V |
| C17 | 1-126-963-11 | ELECT | 4.7uF | 20% | 50V |
| C18 | 1-126-967-11 | ELECT | 47uF | 20% | 16V |
| C19 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C20 | 1-126-963-11 | ELECT | 4.7uF | 20% | 50V |
| C21 | 1-126-963-11 | ELECT | 4.7uF | 20% | 50V |
| C22 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C23 | 1-161-053-00 | CERAMIC | 0.015uF | 10% | 50V (AEP) |
| C23 | 1-161-055-00 | CERAMIC | 0.022uF | 10% | 50V (US, CND) |
| C24 | 1-161-053-00 | CERAMIC | 0.015uF | 10% | 50V (AEP) |
| C24 | 1-161-055-00 | CERAMIC | 0.022uF | 10% | 50V (US, CND) |
| C26 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C27 | 1-126-934-11 | ELECT | 220uF | 20% | 16V |
| C44 | 1-161-051-00 | CERAMIC | 0.01uF | 10% | 50V |
| C45 | 1-136-177-00 | FILM | 1uF | 5% | 50V |
| C46 | 1-126-964-11 | ELECT | 10uF | 20% | 50V |
| C47 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C48 | 1-126-964-11 | ELECT | 10uF | 20% | 50V |
| C49 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C50 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C51 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C53 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C54 | 1-102-518-11 | CERAMIC | 33PF | 5% | 50V |
| C55 | 1-162-199-31 | CERAMIC | 10PF | 5% | 50V |
| C56 | 1-162-290-31 | CERAMIC | 470PF | 10% | 50V |
| C57 | 1-162-286-21 | CERAMIC | 220PF | 10% | 50V |
| C58 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C59 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C62 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C63 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C64 | 1-162-198-31 | CERAMIC | 8.2PF | 10% | 50V |
| C65 | 1-162-282-31 | CERAMIC | 100PF | 10% | 50V |
| C66 | 1-161-051-00 | CERAMIC | 0.01uF | 10% | 50V |
| C67 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C68 | 1-162-215-31 | CERAMIC | 47PF | 5% | 50V |
| C69 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C71 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C72 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| C73 | 1-136-177-00 | FILM | 1uF | 5% | 50V |
| C74 | 1-162-282-31 | CERAMIC | 100PF | 10% | 50V |
| C80 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C81 | 1-162-282-31 | CERAMIC | 100PF | 10% | 50V |
| | | < FILTER > | | | |
| CF1 | 1-760-127-11 | FILTER, CERAMIC (US, CND) | | | |
| CF1 | 1-760-468-11 | FILTER, CERAMIC (AEP) | | | |
| CF2 | 1-760-127-11 | FILTER, CERAMIC (US, CND) | | | |
| CF2 | 1-760-468-11 | FILTER, CERAMIC (AEP) | | | |
| CF3 | 1-760-127-11 | FILTER, CERAMIC (US, CND) | | | |
| CF3 | 1-760-468-11 | FILTER, CERAMIC (AEP) | | | |
| CF4 | 1-579-762-11 | VIBRATOR, CERAMIC | | | |
| | | < COMPOSITION CIRCUIT BLOCK > | | | |
| CFT1 | 1-239-173-11 | ENCAPSULATED COMPONENT | | | |
| | | < CONNECTOR > | | | |
| * CN1 | 1-695-374-31 | PIN, CONNECTOR (PC BOARD) 13P | | | |
| CN2 | 1-536-354-00 | POST PIN | | | |
| | | < TRIMMER > | | | |
| CT1 | 1-141-411-11 | CAP, ADJ 20PF | | | |
| CT2 | 1-141-411-11 | CAP, ADJ 20PF | | | |

| Ref. No. | Part No. | Description | | | | Remarks |
|---|---|---|---|---|---|---|
| | | < DIODE > | | | | |
| D1 | 8-719-050-72 | DIODE KV1370NT | | | | |
| D2 | 8-719-050-72 | DIODE KV1370NT | | | | |
| D3 | 8-719-050-69 | DIODE KV1520N | | | | |
| D8 | 8-719-991-33 | DIODE 1SS133T-77 | | | | |
| | | < FUSE HOLDER > | | | | |
| FH1 | 1-533-233-21 | HOLDER, FUSE | | | | |
| | | < FILTER > | | | | |
| FL1 | 1-236-022-11 | FILTER, BAND PASS | | | | |
| | | < IC > | | | | |
| IC1 | 8-759-386-02 | IC TA2008AN | | | | |
| IC3 | 8-759-333-33 | IC BU2614 | | | | |
| | | < COIL > | | | | |
| L2 | 1-409-905-11 | COIL, FM RF | | | | |
| L3 | 1-501-762-11 | ANTENNA, FERRITE-ROD (MW) | | | | |
| L4 | 1-411-234-21 | COIL, AM OSC | | | | |
| L5 | 1-410-336-11 | INDUCTOR 220uH | | | | |
| L7 | 1-410-521-11 | INDUCTOR 100uH | | | | |
| L8 | 1-410-509-11 | INDUCTOR 10uH | | | | |
| | | < TRANSISTOR > | | | | |
| Q1 | 8-729-115-80 | TRANSISTOR BA1A4P | | | | |
| Q2 | 8-729-115-80 | TRANSISTOR BA1A4P | | | | |
| Q3 | 8-729-115-80 | TRANSISTOR BA1A4P | | | | |
| Q4 | 8-729-115-80 | TRANSISTOR BA1A4P | | | | |
| Q15 | 8-729-422-57 | TRANSISTOR UN4111 | | | | |
| Q16 | 8-729-012-83 | TRANSISTOR 2SK679A | | | | |
| Q18 | 8-729-922-66 | TRANSISTOR 2SC2410SN | | | | |
| Q19 | 8-729-106-07 | TRANSISTOR 2SK514-H | | | | |
| | | < RESISTOR > | | | | |
| R1 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | |
| R2 | 1-247-887-00 | CARBON | 220K | 5% | 1/4W | |
| R3 | 1-249-431-11 | CARBON | 15K | 5% | 1/4W | |
| R4 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R6 | 1-247-887-00 | CARBON | 220K | 5% | 1/4W | |
| R7 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W | |
| R8 | 1-247-863-91 | CARBON | 22K | 5% | 1/4W | |
| R9 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W | F |
| R10 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | F |
| R11 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W | |
| R14 | 1-247-793-91 | CARBON | 27 | | | |
| R17 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R25 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R26 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | F |
| R27 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R28 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R29 | 1-249-415-11 | CARBON | 680 | 5% | 1/4W | F |
| R30 | 1-249-412-11 | CARBON | 390 | 5% | 1/4W | F |
| R35 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | F |
| R35 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W | F |

## TUNER

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R37 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R38 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R39 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R40 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R41 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |
| R42 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W F |
| R43 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R46 | 1-247-863-91 | CARBON | 22K | 5% | 1/4W |
| R55 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W F |
| R56 | 1-249-407-11 | CARBON | 150 | 5% | 1/4W F |
| R57 | 1-249-399-11 | CARBON | 33 | 5% | 1/4W F |
| R58 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W |
| R59 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R60 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W F |
| R66 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R67 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W F |
| | | < VIBRATOR > | | | |
| X1 | 1-760-130-11 | VIBRATOR, CRYSTAL (75kHz) | | | |

**********

MISCELLANEOUS
**********

| | | |
|---|---|---|
| 64 | 1-782-831-11 | WIRE PARALLEL (30 CORE) |
| 119 | 1-692-960-11 | SWITCH, PUSH (1KEY) |
| 126 | 1-452-952-11 | MAGNET |
| 129 | 1-782-832-11 | WIRE, PARALLEL (14 CORE) |
| 130 | 1-782-830-11 | WIRE, PARALLEL (16 CORE) |
| ANT1 | 1-501-947-11 | ANTENNA, TELESCOPIC |
| L3 | 1-501-762-11 | ANTENNA, FERRITE-ROD (MW) |
| LCD801 | 1-801-875-11 | DISPLAY PANEL, LIQUID CRYSTAL |
| M601 | 1-698-727-11 | MOTOR (EG-530-AD-9B) |
| HE601 | 1-500-334-11 | HEAD, E (TC-238) |
| HRP601 | 1-500-333-11 | HEAD, R-P (MS15R-AA2N1) |
| SP101 | 1-505-731-11 | SPEAKER (10CM) (R-CH) |
| SP201 | 1-505-731-11 | SPEAKER (10CM) (L-CH) |
| S601 | 1-762-658-11 | SWITCH, LEAF (MSW-1541T) |
| S602 | 1-762-819-11 | SWITCH, LEAF |

**********

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| | | ACCESSORIES & PACKING MATERIALS | |
| | | ********** | |
| ⚠ | 1-475-327-11 | ADAPTOR, AC (AC-CD980) (US, CND) | |
| | 3-861-066-11 | MANUAL, INSTRUCTION (US, CND) (ENGLISH) | |
| | 3-861-066-21 | MANUAL, INSTRUCTION (CND) (FRENCH) | |
| ⚠ | 1-475-328-11 | ADAPTOR, AC (AC-CD980) (AEP) | |
| | 3-861-066-31 | MANUAL, INSTRUCTION (AEP) (ENGLISH/GERMAN) | |
| | 3-861-066-41 | MANUAL, INSTRUCTION (AEP) (FRENCH/SPANISH) | |
| | 3-861-066-51 | MANUAL, INSTRUCTION (AEP) (DUTCH/SWEDISH/PORTUGUESE) | |
| | 3-861-066-61 | MANUAL, INSTRUCTION (AEP) (SWEDISH, DANISH) | |
| | 3-861-066-71 | MANUAL, INSTRUCTION (AEP) (ITALIAN) | |
| | 1-783-574-11 | CORD, CAR BATTERY (DCC-EC9) | |
| * | 4-941-548-11 | LABEL, CLASS (1) (AEP) | |

**********

HARDWARE LIST
**********

| | | |
|---|---|---|
| #1 | 7-685-648-79 | SCREW TAPPING +BV 3 × 12 |
| #2 | 7-685-647-79 | SCREW TAPPING +BV 3 × 10 |
| #3 | 7-685-646-79 | SCREW TAPPING +BV 3 × 8 |
| #4 | 7-685-104-14 | SCREW +P 2 × 6 TYPE2 NON-SLIT |
| #5 | 7-685-780-01 | SCREW +PTT 2 × 3 (S) |
| #6 | 7-685-864-09 | SCREW +BVTP 2.6 × 10 (S) |
| #7 | 7-685-792-09 | SCREW +PTT 2.6 × 6 (S) |
| #8 | 7-621-255-15 | SCREW +P 2 × 3 |
| #9 | 7-685-863-01 | SCREW +BV 2.6 × 8 |
| #10 | 7-685-651-79 | SCREW TAPPING +B 3 × 20 |

| | |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.<br>Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.<br>Ne les remplacer que par une pièce portant le numéro spécifié. |



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(Shibaura)

# CFD-980

SONY

*US Model*
*Canadian Model*
*AEP Model*

# SERVICE MANUAL

REVISED

**2000. 03**

# SUPPLEMENT-1R

**File this supplement with the Service Manual.**

**Subject: External cabinet color BLACK is added in the US model.**

(ECN-RCA01001)

| Page | Before Change | | | After Change | |
|---|---|---|---|---|---|
| | Ref. No. | Part No. | Description | Part No. | Description |
| 51 | 1 | 3-017-929-11 | LID, BATTERY CASE (BLACK) (AEP) | 3-017-929-11 | LID, BATTERY CASE (BLACK) (US, AEP) |
| | 3 | 3-017-964-11 | CASE, BATTERY (BLACK) (AEP) | 3-017-964-11 | CASE, BATTERY (BLACK) (US, AEP) |
| | 11 | 3-017-947-11 | CABINET, REAR (BLACK) (AEP) | 3-017-947-11 | CABINET, REAR (BLACK) (US, AEP) |
| | ANT1 | 1-501-947-21 | ANTENNA, TELESCOPIC (WHITE) (AEP) | 1-501-947-21 | ANTENNA, TELESCOPIC (WHITE) (US, AEP) |
| 52 | 51 | X-3375-618-1 | CABINET SUB ASSY, FRONT (BLACK) (AEP) | X-3375-618-1 | CABINET SUB ASSY, FRONT (BLACK) (US, AEP) |
| | 57 | X-3374-445-1 | HANDLE SUB ASSY (AEP) | X-3375-616-1 | HANDLE SUB ASSY (BLACK) (US) |
| | 61 | X-3375-663-1 | PANEL SUB ASSY, CONTROL (AEP) | X-3375-663-1 | PANEL SUB ASSY, CONTROL (BLACK) (US, AEP) |
| 53 | 125 | 3-017-934-11 | CD LID (AEP) | 3-017-934-11 | CD LID (BLACK) (US, AEP) |

**9-923-297-82**

**Sony Corporation**
**Personal Audio Division Company**

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